YACHTING

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Photos by M. Rosenfeld

At the finish on the opening day eighty boats crossed the line within two minutes

Race Week at Larchmont

Big Fleets, Fine Weather and Keen Competition Mark Annual Event on the Sound

By SAMUEL WETHERILL

THE thirty-fourth annual Race Week of the Larchmont Yacht Club, which started on Saturday, July 16th, ended upon the following Saturday in a blaze of glory and a southeast squall. In tonnage, the fleet did not quite come up to the records set in previous years. The number of starters actually exceeded by three the total set last season. Larchmont Luck was again in evidence, fine weather and plenty of wind favoring the enthusiastic windjammers; competition was keen in nearly every class, and protests were noticeable by their absence. All told, Larchmont rejoiced in one of the finest race weeks in its history, despite the depression, which was expected to reduce the fleet — and the enthusiasm — to the vanishing point.

To be sure, some of the larger classes were entirely absent, such as the Ten-Metres, Class M, Open Eight-Metres, N. Y. "Forties," and so on. But the smaller classes, down to dinghies and Wee Scots, filled amazingly well, and with a fine turnout of Juniors swelling the fleet, and fresh breezes ensuring early finishes on every day, everybody went home happy.

For once, the highly efficient and hard-working regatta committee, under the able leadership of Chairman Alfred G. Keeshan, was stumped. For on opening day at least eighty boats swooped down on the finish in a terrific jam — big boats, little boats, all kinds and descriptions of boats. To clock them all accurately — or even a majority of them — was beyond the ability of any committee, no matter how competent or how large. So the Larchmont committee arbitrarily decided that any boat finishing as far down in her class as fourth, or lower, would be credited with the same number of points as the fourth boat, and let it go at that. Inasmuch as there were few complaints from the contestants, the rather unorthodox ruling seemed to be a happy solution to an otherwise impossible situation.

The number of ladies in the racing fleet was by far the largest yet seen. Not only did a great number of the contestants carry one or more members of the fair sex along as crew, but quite a smattering of craft were helmed by fair blondes or brunettes, who gave the "gentleman" skippers plenty to think about. The handicap racer, *Bre'r Rabbit*, skippered by Mrs. Gordon Raymond, sailed the series in good shape with an all-feminine crowd of sheet-pullers and spinnaker-setters, and asked no quarter from any of her competitors.

The Twelve-Metre racing simmered down to a question as to whether any of her three competitors could beat Horace Havemeyer's foreign-built *Mouette*. They managed to do it once or twice, but *Mouette* ended up

with an easy victory on points for the week over Henry B. Plant's *Clytie*, W. A. W. Stewart's *Iris* and Bayard Litchfield's *Cantitoe*.

No less than seven of the old and faithful N. Y. "Thirties" turned out, the veteran Sam Pirie having a walkover with *Oriole*, with G. N. McNaughton's *Nachtan* runner-up. Three of the one-design Eight-Metres came to the line, rather unexpectedly, giving Joe Carreau a chance to bring home *Roulette III* first in most of the races for an easy series victory.

There was some grand racing in Class R, with the eventual winner in doubt right up to the last race, when C. L. Farrand, sailing *Robin*, managed to emerge ahead of the field by a 3-point margin over *Cotton Blossom*, owned by W. H. Wheeler, Jr.

The Interclubs turned out in full strength, Arthur Knapp, of Star boat fame, sailing *Chinook* hard and fast enough to give "Corny" Shields, in *Aileen*, quite a scare. The veteran Shields finally emerged a victor, with *Chinook* second, *Canvasback* third, and Ralph Manny, class champion, fourth in *Blue Streak*.

Continuing his remarkable winning streak with hardly an interruption, Clarence Smith, sailing *Reveille*, ran rough shod over his competitors in the Victory Class, being followed at respectful intervals by *Alouette* and *Blue Jacket*, neither of which ever threatened his supremacy. Fritz Coudert skippered *Notus* home a victor in Class S, being followed by *Aurora* and *Nepenthe*.

One of the largest turnouts was registered by the Atlantic Coast One-Designs, with some keen racing as a result. When the smoke of battle had cleared up after the last race, the point scorers found that Bill McHugh had emerged a winner in *Mistral* with a lead of nine points over Kingsley Kunhardt's *Noiram*, with Arthur Iselin's *Clown* a poor third, and the others trailing.

The Second Division Handicap Class produced as good competition as any of the handicap classes on the Sound has seen in some years. This division is composed primarily of out-built Six-Metre boats, some with cabins added, plus the Granberry-Cross sloop *Anita*. Only two points separated the first three boats at the end of the week, the veteran Granberry helming *Anita* home a one-point winner over George Wallace's *Tien Hoa*, with H. S. Sayers, Jr.'s, *Clytie* another point away for third place. *Flirt III* and *Natoma* tied for first place in the Third Division, with 35 points each, necessitating a sail-off some time in August. Howell Perrin took the honors in the Fourth Division with *Nike*, with a one-point margin over D. Geriot's *Nereid*.

RACE WEEK SUMMARIES

Total starters for week — 1324
Largest day — 204
Average — 165

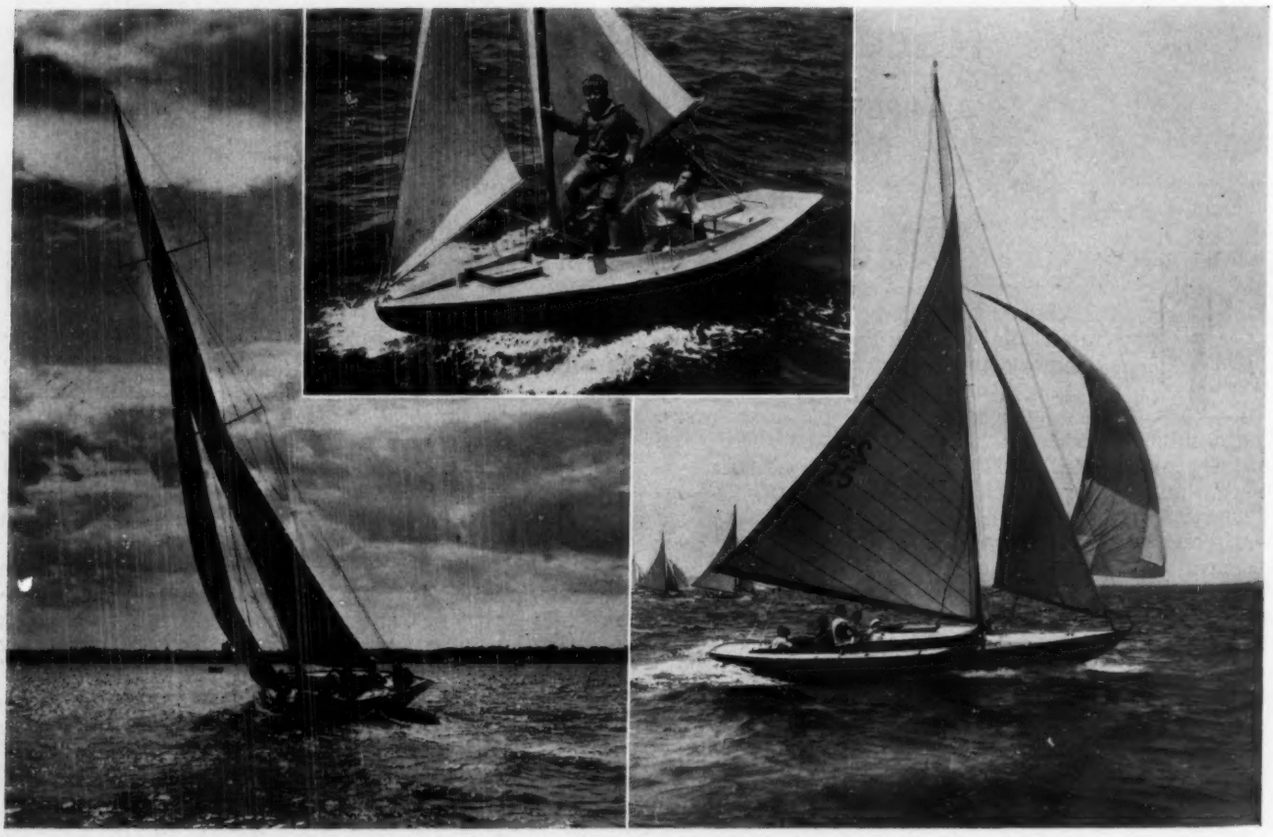
The points of only the leading boats in the various classes are recorded.

TWELVE-METRES — *Mouette*, 18; *Clytie*, 12; *Iris*, 10; *Cantitoe*, 9.

N. Y. Y. C. 30-FOOTERS — *Oriole*, 39; *Nachtan*, 29; *Interlude*, 28; *Alera*, 25; *Phantom*, 21.

EIGHT-METRE ONE-DESIGN — *Roulette III*, 10; *Aleada*, 8; *Silhouette II*, 4.

CLASS R — *Robin*, 34; *Cotton Blossom*, 31; *Gypsy*, 31; *Astrild*, 29; *Live Yankee*, 22.



Top, "Wee Thistle" with a wee but smart crew. Left, Horace Havemeyer's Twelve-Metre "Mouette" won the series in her class and appears nearly unbeatable. Right, "Aileen" was perfectly sailed by "Corny" Shields to win the Interclub series

The ubiquitous "dinks" were sailed by three generations, and the eldest of the Ratseys won the series

SOUND INTERCLUBS — *Aileen*, 112; *Chinook*, 108; *Canvasback*, 107; *Blue Streak*, 106.

VICTORY CLASS — *Reveille*, 55; *Alouette*, 44; *Blue Jacket*, 40; *Whisper*, 33; *Madame*, 33.

CLASS S — *Notus*, 29; *Aurora*, 23; *Nepenthe*, 23; *Anita*, 19.

ATLANTIC COAST — *Mistral*, 186; *Noiram*, 177; *Clown*, 143; *Budge*, 142; *Ranee*, 134.

STAR CLASS, DIVISION 1 — *Joy*, 139; *Ace*, 133; *Winsome*, 131; *Vesta*, 129; *Grey Fox*, 127.

STAR CLASS, DIVISION 2 — *Lout*, 117; *Mimi*, 104; *Sunny*, 102.

DIVISION 2, HANDICAP CLASS — *Anita*, 39; *Tien Hoa*, 38; *Clytie*, 37; *Wasp*, 32; *Hawk*, 29.

DIVISION 3, HANDICAP CLASS — *Flirt III*, 35; *Natoma*, 35; *Spinster*, 34; *Bre'r Rabbit*, 27.

DIVISION 4, HANDICAP CLASS — *Nike*, 44; *Nereid II*, 43; *Sayonara II*, 22.

WEE SCOTS — *Wee Gee*, 149; *Wee Budlet*, 144; *Jinx*, 147.

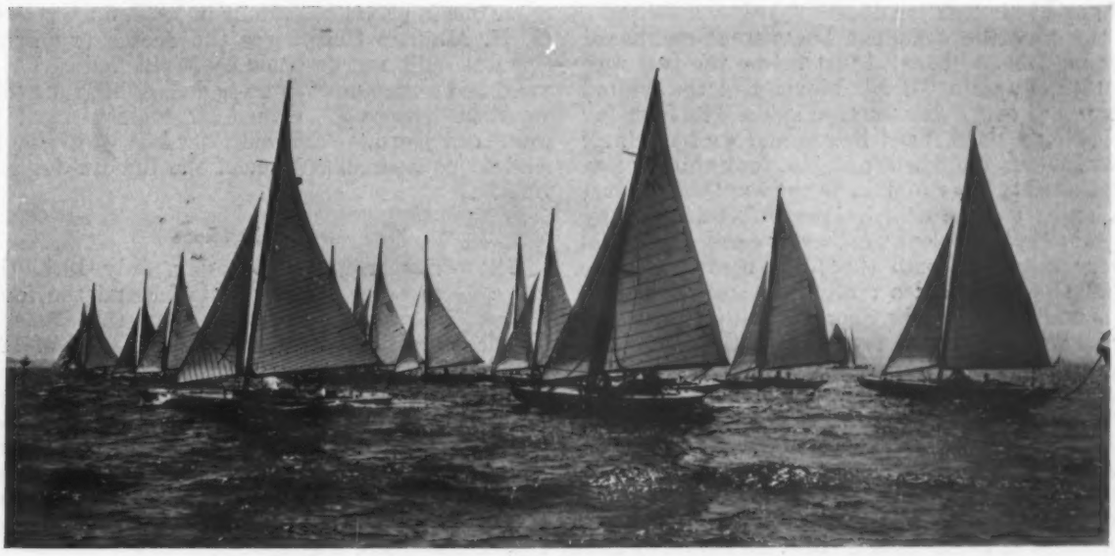
STAMFORD ONE-DESIGN — *Little Hope*, 12.

INDIAN HARBOR PIRATES — *Penzance*, 26; *Tobasco*, 24; *Yoho*, 22.

SOUND JUNIORS — *Ariel*, 40; *L. Y. C.* 2, 38; *Sea Horse*, 37.

BULLSEYES — *Bullfrog*, 28; *Bullfinch*, 24.

SNIPES — *Typhoon*, 63; *Gamecock*, 61; *Phantom*, 61.



The "Atlantics" turned out in large numbers and furnished close racing, as the start above indicates

Beken & Son, Cowes

"Bob-Kat," in the foreground, spreading her parachute spinnaker, as are the other two American boats, in contrast to the dark-hulled British boat, which, like her team-mates, was not equipped with this valuable sail

United States Wins British-American Team Match

By BRIGGS CUNNINGHAM

FOR the first time since the contests began in 1921, an American team of Six-Metre boats has been victorious on the Solent. It was a sweeping victory, really, for the series was won in four straight races, while on two occasions the American team came home in the first four places. The winning honors were evenly divided between the American team, as each of the four boats won one race. The series proved to be a great tribute to young Olin Stephens, of the firm of Sparkman and Stephens, the designer of three of the boats, for only once during the four races did a British boat finish ahead of any of his creations.

From the time the American boats went overboard at Cowes on June 30th, until just before the first race on July 18th, Captain "Bob" Meyer had the United States team out every day for trial spins. The first day it was blowing a good, hard breeze and we had single reefs down. We used old sails and just took things easy. There was a nasty sea running, as the wind was against the tide, and from the descriptions we had heard, we judged it was typical Solent weather. We sailed informal races every day over both the Ryde course and the courses off Cowes. We also cruised up and down in a launch, sounding along the shore, locating rocks and learning all we could about the tricks of the tide.

The series consisted of the best four out of seven races, each team consisting of four boats. The American boats were *Bob-Kat II*, Robert B. Meyer, skipper, Charles Meyer and Karl Konow, crew. She was designed by Olin Stephens and built in 1931. *Lucie*, B. S. Cunningham, skipper, Kenneth Trimingham and Larry Reybine, crew. Designed by Crane and built in 1931. *Jill*, J. S. Johnson, skipper, Bayard Dill, crew. Designed by Olin Stephens and built during the summer of 1931. *Nancy*, Seawanhaka Yacht Club Syndicate, designed this year and sailed by Olin Stephens, with Robert Reybine and P. LeBoutillier, crew. All of the boats were built by Nevins and were designed especially for Solent conditions.

The British team consisted of the following boats: *Finetta* (ex-*Felma*), owned by J. S. Bacon. She is a 1929 Fife boat, and was a member of the 1930 team at Oyster Bay. She was the crack Six-Metre on the Solent last season. *Nada* (ex-*Dana*), owned by Commodore F. G. Mitchell of the Royal Corinthian Yacht Club of Burnham. She is a Fife boat built in 1930. *Vorsa*, owned by G. H. Maurice Clark, was the Scotch representative. She was built and designed by Mylne on the Clyde last year, and was counted upon to do best in light to medium weather. *Ancora II*, owned by Messrs. Cyril Wright and Cecil Dormer. Fife built her last winter and she is said to be a small edition of the famous Eight-Metre *Saskia*.

The First Race

The series began on Monday, July 18th, the first three races being sailed off Ryde, and the fourth off Cowes. There were four marks to the Ryde course, which was sailed twice around for a total of 16 miles. The chart shows both courses.

We towed down to Ryde from Cowes in the morning and at the time of starting the wind was squally, coming from north to north-northwest, and varying from 20 to 25 m.p.h. The tide was running strongly to the westward during the race. Unfortunately, with the wind where it was, there was no windward leg and the boats simply reached around the course.

The British boats came to the line with single-reefed

mainsails and working jibs. The American yachts all carried full mainsails and large intermediate jibs very easily. As the starting gun boomed at twelve o'clock the boats were away in a bunch on a close starboard reach, with *Finetta*, *Vorsa* and *Ancora II*, of the British team, leading. *Nada* was across too soon and had to return. *Jill* had the weather berth and gradually overhauled and passed *Ancora* to windward, while Bob Meyer sailed *Bob-Kat* through the latter's lee. *Finetta* rounded the first mark, the Peel Bank buoy, in the lead, but stood on close-hauled for a way before coming about, and lost ground, as the second leg was really a reach and all the boats could just about lay the mark.

Lucie drove off for the second mark with a strong lee-bowing tide, and, as the other three American boats, by good team work, held the leading British boats, *Lucie* was able to get through *Vorsa's* lee and take the lead. *Lucie* thus rounded the second mark in the lead, followed by *Vorsa*, with *Bob-Kat* close astern of her, *Jill*, *Nancy*, *Finetta*, *Ancora II*, and *Nada*.

The third leg was a spinnaker run with the wind on the port quarter. *Bob-Kat* and *Jill* set their big "circus tent" spinnakers while *Nancy* and *Lucie* carried their parachutes. The first two named drove through *Vorsa's* lee, and *Nancy* also gained rapidly on the run. Two of the British team held high along the beach with Genoa jibs set, to get out of the tide, but gained nothing. The fourth leg was a broad reach back to the starting line and the first round ended with the boats in the following order: *Lucie*, *Bob-Kat*, *Jill*, *Vorsa*, *Nancy*, *Finetta*, *Ancora II*, *Nada*.

On the second round, the procession remained unchanged until the second leg, when *Nancy* drove through *Vorsa's* lee to take fourth position as *Vorsa* shook out her reef. This order was held to the finish, with the U. S. team holding the first four positions. The finish times were:

Lucie	2:37:01	*Vorsa*	2:40:03
Bob-Kat	2:38:07	*Finetta*	2:40:37
Jill	2:39:08	*Ancora II*	2:40:51
Nancy	2:39:54	*Nada*	2:44:28

Points: U. S. 26¼; Great Britain 10

The Second Race

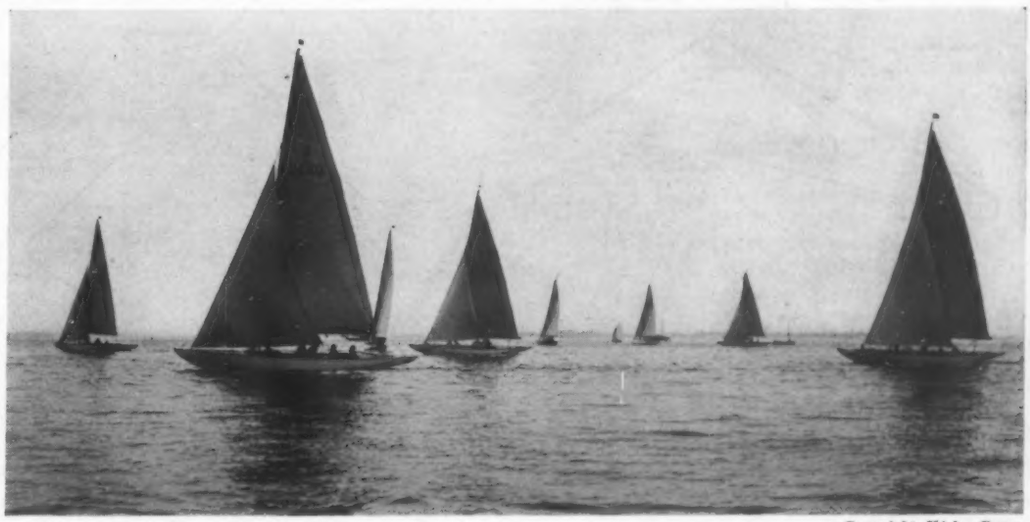
There was no wind at all as the boats towed down to Ryde for the second race, but the sun was shining and it was quite warm. At starting time, noon, there was a shifty breeze from W.N.W., of about eight miles strength, but full of soft spots. In general, it was a fair Genoa jib breeze. The course was the same as for the first race.

This time the first leg was a dead beat to windward and the whole fleet crossed the line on the starboard tack, well bunched, *Jill* in the weather berth. All the Americans carried big Genoas and soon *Jill* walked out into the lead, a postion she was to hold to the finish. The Americans were covering the British boats carefully, but *Vorsa* finally worked clear and came over to cover *Lucie*, letting *Finetta* slip by, and forcing *Lucie* back to last place at the first mark, where *Jill* led, followed by *Bob-Kat*.

Jill increased her lead on the spinnaker run to the next mark, and the positions of some of the others changed somewhat, but without affecting the leaders. On the third leg *Bob-Kat* luffed *Ancora* into a position where *Nancy* was on the latter's wind, and finally sailed around her to windward. At the end of the first round the order was: *Jill*, by nearly four minutes;

Beken & Son, Cowes

The fourth and last race off the Royal Yacht Squadron Castle at Cowes. "Nancy," "Jill," "Lucie," and "Nada" are across the line while "Vorsa" is returning



Right. Soon after the start of the third race at Ryde. Left to right, "Jill," tacking, "Nancy," "Finetta," on the port tack, "Nada," "Vorsa," "Bob-Kat," "Lucie," and "Ancora II"

Copyright, Kirks, Cowes

Bob-Kat, Nada, Nancy, Ancora II, Vorsa, Lucie and *Finetta.*

Jill and *Bob-Kat* continued to draw away on the second round and *Nancy* sailed into third place. On the third leg, *Ancora II* and *Vorsa* camped on *Lucie*, which was forced to luff first one and then the other, but could not get by, and had to give both room at the third mark, where she dropped back to last place.

The finish was as follows:

Jill	3:08:21	*Finetta*	3:22:32
Bob-Kat	3:11:46	*Vorsa*	3:23:34
Nancy	3:15:48	*Ancora II*	3:24:38
Nada	3:20:16	*Lucie*	3:25:05

By getting the three first places, the U. S. team took 22¼ points to 14.

Third Race

When the time for starting the third race at Ryde came along, there was a flat calm and the postponement signal was hoisted until 1:15 p.m., when a light breeze came in from N.W. with the turn of the tide to the westward. This breeze gradually increased during the race from about 5 to 18 miles in strength. There was a strong tide to buck on both the runs.

Jill again got the best start, but with the rest of the boats closely bunched on the line. The fleet soon split, some going offshore and some inshore, team tactics being much in evidence as the skippers covered their rivals whenever possible. The United States team all carried their light weather sails, *Lucie* using her loose-footed mainsail. *Jill* and *Vorsa*, on the offshore tack, soon worked out a lead, but *Nancy* and *Ancora II* picked up a good slant inshore and went for the first mark with started sheets. The others sailed a middle course. *Jill* and *Vorsa* were headed as they approached *Lucie* and *Finetta*. *Jill* crossed this pair and tacked on top of *Finetta*. *Vorsa*, on the starboard tack, crossed *Lucie*, and the latter promptly went about. *Vorsa* tacked again to cover her, and was on the port tack as the boats again converged. Just then *Lucie* got a lift while *Vorsa* was headed and could not cross the American. *Lucie* had to bear off to go under *Vorsa's* stern, and seeing this, Maurice Clark, in *Vorsa*, very sportingly withdrew and the British team was thus reduced to three boats for the rest of the race.

Nancy had worked into the lead at the first buoy, followed by *Ancora II*. These two held their lead on the second leg, a spinnaker run, but with *Lucie* and *Bob-Kat* right on *Ancora's* heels. At the end of the first round, *Nancy, Bob-Kat* and *Lucie* were leading, in that order, followed by *Finetta. Jill* had dropped back to next to last.

The first leg of the second round almost turned into a close reach as the wind gave the boats a lift so that they almost fetched the mark on the port tack, and *Bob-Kat* sailed through *Nancy's* lee and led her team-mate around the buoy. On the run to the next mark, a tow interfered and *Bob-Kat* and *Nancy* both had to luff around the stern of the barge, *Nancy* again going into the lead as they jibed around the buoy.

On the third leg, *Nancy* kept her lead, followed peacefully by *Bob-Kat* and *Lucie*, while *Jill*, after a hot luffing match, went into fourth place. They finished in this order, the American boats being 1-2-3-4.

Nancy	4:34:38	*Ancora II*	4:38:16
Bob-Kat	4:35:58	*Finetta*	4:39:56
Lucie	4:36:34	*Nada*	4:41:52
Jill	4:37:34		

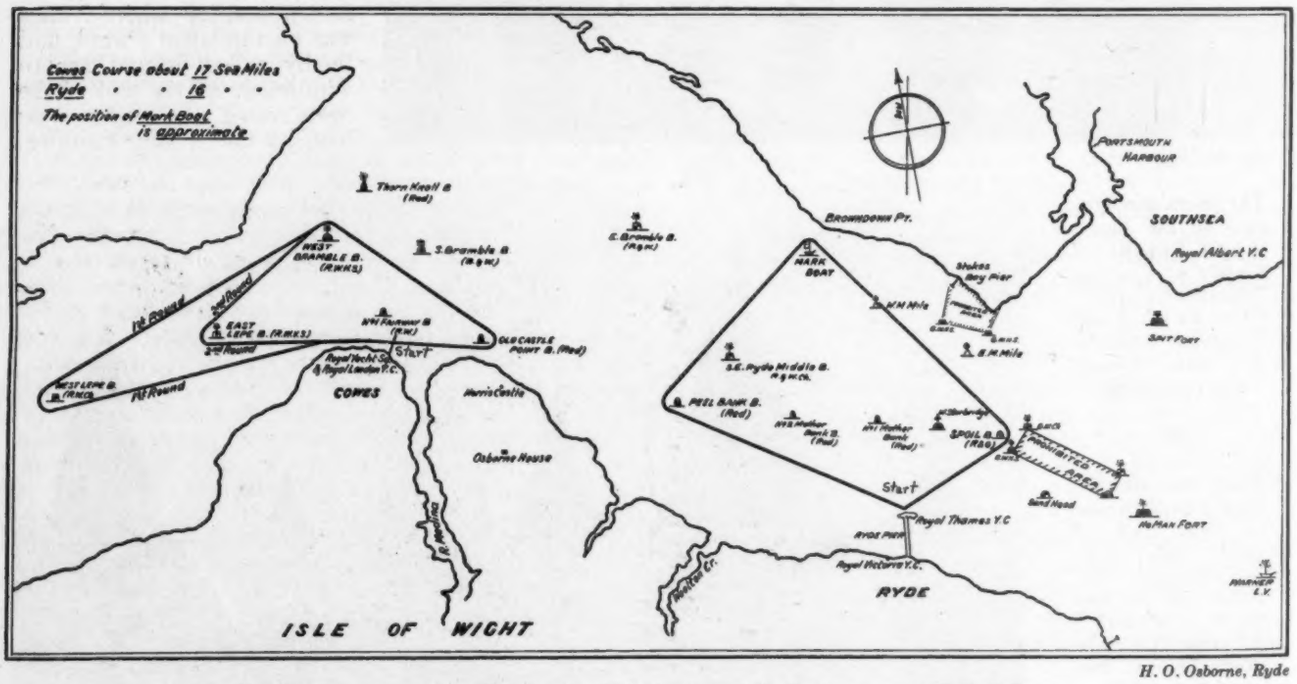
Points: U. S. 26¼; Great Britain 9

Fourth and Last Race

After a day of rest, the fourth race was sailed on Friday over the Cowes course, starting from the Royal Yacht Squadron. The course was 17 miles, with a long beat to the West Lepe buoy, a dead run to West Brambles buoy, a broad reach to Old Castle Point, and a beat back to the line. The second round was shorter, the first leg being only to the East Lepe buoy. It is a much trickier course than at Ryde, as one must go close inshore at three different points, with the possibility of going aground.

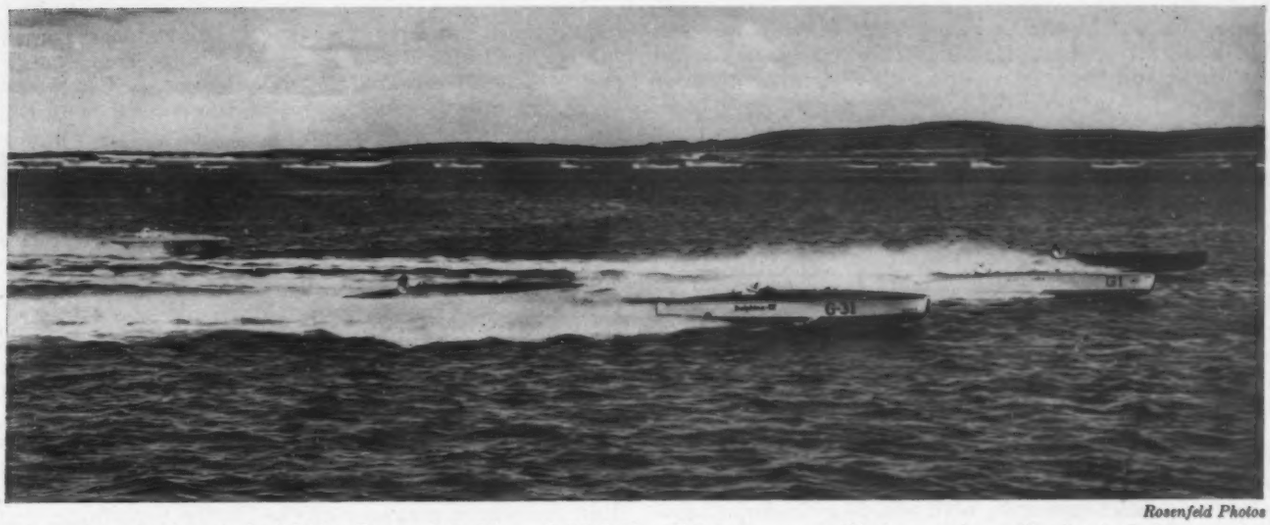
The day was squally, with practically no wind at the

(*Continued on page 92*)



H. O. Osborne, Ryde

The first three races were sailed over the Ryde Course and the final race was sailed off Cowes



Rosenfeld Photos

Start of one of the heats in the Gold Cup Race on Lake Montauk. "Delphine IV," the seven-year-old winner and record breaker, in the foreground

The Gold Cup Goes Back to Detroit

Rehabilitated Racers Set New Class Records

By EVERETT B. MORRIS

THERE have been larger fields competing for the Gold Cup than that which churned up Lake Montauk the afternoon of August 13th, but never one which packed so much metal-melting speed into three 30-mile heats and so clearly demonstrated the prowess of the rehabilitated old-timers of the class. Two records were broken and three of the four survivors of the starting line-up of six boats were at least seven years old.

The winner was *Delphine IV*, driven by "Bill" Horn of Newport News, Va., for Horace E. Dodge of the Detroit Yacht Club, and the second boat was *El Lagarto*, owned and driven by George Reis of Pasadena, Calif., and Lake George, N. Y. *Delphine IV*, known in her youth as *Solar Plexus*, was built at the Dodge plant in Detroit in 1925 from the designs of George F. Crouch. *El Lagarto*, 1931 victor in the National Sweepstakes and the President's Cup, made her racing debut in 1922 as E. L. Grimm's *Miss Mary*.

Not only did this pair of theoretically outmoded speedboats iron all opposition flat, but they drew heavy lines through two records for Gold Cup Class competition. *Delphine IV* won the first heat in 31 minutes, an average speed of 58.06 statute miles per hour. That washed out the heat record of 56.679 m.p.h. made by Dick Hoyt's *Imp II* at Red Bank in 1930. In the second heat, favored by somewhat smoother water, *Delphine* knocked her new record off the books before the ink had dried. She hammered around the course at 59.21 m.p.h. and won by only eight seconds from *El Lagarto*, whose speed of 58.95 m.p.h. was also inside the newly established mark.

Obviously not running at full throttle, for which there was no necessity since the best she had to get was third place to take the trophy even if *El Lagarto* won the heat, *Delphine IV* trailed her elderly rival over the line in the final set-to. In so doing, however, she went fast enough to make her total time for the 90-mile race approximately seven minutes faster than the figures set up a year ago over the same course by *Hotsy Totsy*. *Delphine IV's* time was 1 hour 33 minutes 31 seconds, an average of 57.77 miles an hour, as compared to *Hotsy Totsy's* 1 hour 40 minutes 48 seconds, 53.59 miles an hour.

Some idea of how closely the two leaders were matched may be gained from the fact that *El Lagarto's* race total was only 45 seconds more than *Delphine IV's*, and thus also well within the previous record. Not bad for an old crate dragged out of retirement a year ago when her owner's 1930 *El Lagartito* went sour.

J. McKenzie, William Horn, driver of winning "Delphine IV," and Horace E. Dodge, owner

So much for the exploits of two boats which didn't get a tumble from the experts last season in advance reports on the Gold Cup and President's Cup regattas. The third boat in the final standing was *Louisa*, built in 1931 for John Wanamaker, Jr., of Philadelphia. This year, with *Hotsy Totsy* in retirement again after winning in 1930 and 1931, *Louisa* carried on the defense of the

trophy for the Montauk Yacht Club with the veteran Vic Kliesrath at her helm. *Louisa's* best was third in each heat and she was never within five miles an hour of the leaders in speed. They lapped her in every heat.

Fourth place went to *Miss Columbia,* which had her coming out party the same year in which *Delphine IV* was introduced to America's speedboat society. She is now owned by a group of Red Bank Yacht Club sportsmen and moves on the shingled bottom brought into popularity by *Hotsy Totsy's* triumph on the Shrewsbury two years ago. Ted Hall drove her faster at Montauk Point than she had ever gone before — nearly 52 miles an hour in the first heat — and with a little more work on her power plant it is conceivable that by the time the President's Cup race rolls around she will be a contender not to be lightly passed over.

The two entrants which broke down early in the first heat and were unable to resume the strife represented extremes of age and design. They were Horace Dodge's new *Delphine V,* with the 24-cylinder, 12-carburetor Deusenberg engine which did brief duty in *Miss Syndicate III* last year, and John Shibe's *Arctic Tern,* ex-*Miss Tampa,* ex-*Miss Philadelphia.* The latter, her displacement hull now adorned with a set of shingle steps, was put into the race when it was found impossible to make repairs to the 1931 *Miss Philadelphia* in time to ship her from the Quaker City to Montauk. In a trial run a week before the race, *Miss Philadelphia's* engine threw a connecting rod through her crankcase and the necessary parts were not immediately available.

Delphine V was built from designs turned out by Fred Cooper, creator of *Miss England II,* and her hull form clearly reflected the *Miss England* influence. She has a single deep step in her moderate "V" bottom, broad, flaring bows and torpedo stern. She is twenty-six feet long on the water and five feet nine inches in her widest beam. Failure of her oil pressure system prevented a real demonstration of her capabilities. On the third lap a connecting rod snapped and the engine froze, putting her in the pits for the rest of the day. *Arctic Tern* "went out" a lap later when she flung a valve through the piston.

It would have been interesting to see *Delphine V* running at her best with her single step and 24-cylinder engine against the shingle-bottomed, 6-cylinder, Packard-powered craft. As things turned out, the experts left Lake Montauk with the impression that Gold Cup hull design has progressed leaps and bounds beyond the development of engines for the class. Old motors, rebuilt and tuned up by expert hands, did yeoman service in driving the faster planing hulls. *Delphine IV* and *El Lagarto* each had 2½-mile laps clocked at speeds of 59.602 miles an hour, and in the second heat Bill Horn's galloping gadget ran one lap at an even mile a minute, the fastest Gold Cup lap on record outside of *Californian's* sensational 63.644 m.p.h. whirl around the Shrewsbury course in 1930.

The story of *Delphine IV* is a story of Bill Horn's faith in his ability to make the old *Solar Plexus* step along with the more recent Gold Cup boats. He took her off the shelf last summer, had her engine overhauled, made a multi-step hydroplane of her and then entered the President's Cup race at Washington. How *Delphine IV* leaped crazily about the Potomac, hitting about every tenth wave and landing sometimes on one chine, sometimes on another, sometimes bow first, sometimes stern first, but never level, is history now. Eventually she tore off her rudder and fetched up on the beach. But the young manager of the Dodge boat factory at Newport News was anything but discouraged. He told this writer after the race: "I've got the angle of her steps figured wrong. She sure gave me a ride. Next year I'll have everything fixed and if she does what I think she can do we'll be up there with the fast jobs."

At Montauk *Delphine IV* still showed kangaroo tendencies, but she was not only up with the "fast jobs" but ahead of them.

FIRST HEAT

Boat and Driver	*Time*	*M.P.H.*	*Best Lap*	*Points*
Delphine IV, W. M. Horn	31:00	58.06*	59.602	400
El Lagarto, George Reis	32:14	55.84	59.210	361
Louisa, V. W. Kliesrath	34:21	52.40	58.062	324
Miss Columbia, Ted Hall	34:39	51.95	54.545	289
Delphine V, H. E. Dodge	D.N.F.		51.722	....
Arctic Tern, Armand Pugh	D.N.F.		44.775	....

SECOND HEAT

Delphine IV	30:24	59.21*	60.000	800
El Lagarto	30:32	58.95	59.602	722
Louisa	34:05	52.81	54.877	648
Miss Columbia	35:25	50.82	51.722	578

THIRD HEAT

El Lagarto	31:30	57.14	59.210	1122
Delphine IV	32:07	56.05	58.440	1161
Louisa	34:35	52.05	53.440	972
Miss Columbia	35:08	51.23	52.022	867

* New heat record.

"El Lagarto," driven by George Reis, her owner, finished second in the 90-mile grind. She is ten years old, yet she bettered the previous record

Start of the Cruising Division in the race to Mackinac Island, from Chicago. In the foreground, "Ponjola," which placed third, "Bagheera," and "Quicksilver II," winners of first and second places, respectively

Mackinac Race Sailed in Light Winds

A Fine Fleet Sails Famous Course in Slow Time

By HERBERT L. STONE

LIGHT, baffling winds, interspersed with wearying calms were the conditions met by the fine fleet of twenty-two yachts in this year's Chicago-Mackinac race, which started off the Belmont Park station of the Chicago Yacht Club on July 16th. There were, to be sure, a couple of stretches of good sailing weather that pushed the fleet northward at a fast clip, but these lasted for only a few hours each, and for the most part it was a light sails race in which crews wore themselves out shifting and jibing canvas, and raised callouses on their hands from handling halliards. As for a hearty pull on the main sheet, these were few and far between.

And yet it was an interesting race, from start to finish, because most of the boats always had competitors in sight to battle to a standstill, and the lead kept constantly shifting. Luck, of course, played an important part in the final standing of the fleet, but, by and large, it was those who made the best use of their kites and kept their boats moving through the light stuff that finished on top, as has happened so often before in long distance racing.

In the racing division, the old Class Q sloop *Princess* put a stop to the long string of victories hung up by the *Siren*, and the 25-year-old sloop, rebuilt and re-rigged by her energetic owners, was the first boat to show up at Mackinac Island, 331 miles from the starting line, leading her old rival by 1 hour, 41 minutes, and winning handsomely by 1 hour, 28 minutes, 50 seconds, corrected time.

In the cruising division, which accounted this year for eighteen of the twenty-two starters, "Bob" Benedict's schooner *Bagheera*, after disputing the lead with A. E. Peirce's *Quicksilver* for nearly three days, crossed the finish line between Mackinac Island and Round Island Light only a mile and a half behind her larger competitor, to win on corrected time by over two hours. And it is lucky that she was that close on the heels of the white staysail schooner, for shortly afterwards the wind let go once more and those boats still battling around in the Straits were hours in reaching the finish, as the clock ticked off the minutes of their rapidly vanishing time allowance.

It was my good fortune to sail on *"Bag"* in this race. After admitting brazenly last year, when I sailed on *Privateer*, that I liked comfort (with a capital C) in these long distance affairs, I need offer no excuses for signing on in one of the larger yachts in the race. I found what I was looking for, though no more than in my former choice.

This Mackinac affair seems to be getting back to a genuine cruiser's race, as was the intention when it was organized many years ago. This year saw only four rating yachts in the racing division, whereas in some recent years the racers have outnumbered the cruisers. None of the Milwaukee racing fleet showed up for the event, which was regrettable.

The start was made in the lightest of airs at 4:00 P.M., when the racing division was sent away. It had been blowing fresh from the north all morning and an old sea was rolling down Lake Michigan, slatting what little wind there was out of the sails and killing headway. So the start of both classes was a slow affair. With the start of the heavy cruisers, the wind let go entirely, and nearly the whole fleet was on the line at once, being set onshore or into one another by the sea that was still rolling down the lake. With some of the boats in imminent danger of being washed up on the sea wall, the race committee boat passed a line to several and pulled them clear of danger, a procedure which was later to be protested. However, it is doubtful if this timely assistance had any effect on the results of the race, although it might have.

In the light air stirring, the slim racers worked out ahead, *Princess* and *Siren* leading the newer 25-rater *Hope* and the old *Illinois*, now rigged as a yawl. *Bagheera* had crossed close to the windward marker, and having what little wind there was clear, and working

her balloon staysail and her reaching jib effectively, she was soon leading her division, with *Valkyrie* (ex-*Vagabond*, from Marblehead) to leeward of her. After a bit a breath of air came in from the southward and a varying assortment of spinnakers was broken out as the fleet crept slowly northward. Just before dark the southerly freshened a bit and the larger boats, *Freedom*, *Bimesa II*, from Toledo, and *Quicksilver*, began to move up and overhaul *Bagheera*. *Ponjola* was also doing well, and *Privateer* was having a battle with *Velma*, and others of her size, out in the lake, and were not far behind the leaders.

Slowly the wind hauled to west of south, and on *Bagheera* we jibed over after dark and reached in for the west shore in anticipation of its coming more westerly. *Bimesa* did the same.

Before morning the wind went to N.W. and started to freshen. This headed the boats off their course, and the fleet was soon tearing across Lake Michigan towards the easterly shore, some seventy-five miles away, where they fetched in below Little Point Sable early in the afternoon. At this point *Princess* and *Siren* were leading, followed by *Hope*, which had pulled out a headstay and lost valuable time, *Quicksilver*, *Bagheera*, *Bimesa* and *Freedom*. *Bagheera*, and the three boats ahead of her, just managed to hold on to the dying nor'wester until they had rounded the point, but the others, in behind Little Point Sable, ran into a pocket, lost the wind, and stayed there all night, hardly one hundred miles from the start, until a light sou'wester ruffled the water just after daybreak. And while they were becalmed under the land, *Bagheera*, and those ahead of her, had a light northeast breeze out in the lake that kept them slipping through the water, close-hauled, at about three knots. This is where the race was really won, or lost.

Monday found the sou'wester increasing until mid-afternoon as the fleet reeled off the miles at a seven-to-eight-knot clip, past Point Betsie and Sleeping Bear, through the Manitou Passage and up to the wooded Beaver Islands. Then it started to taper off, and with the sun it dropped like a candle snuffed out, leaving the van becalmed between Skilligalee and Gray's Reef. Then followed a trying night of sail shifting, with the fleet strung out from Manitou Passage to Gray's Light-vessel over a distance of 65 miles. On "*Bag*" it took us eight hours to sail six miles as the catspaws and whispers of air went all around the compass while we shifted sails unceasingly and swore incessantly. *Princess* was then leading *Siren* in the racing division by about two miles, while *Quicksilver* was perhaps a mile ahead, but to leeward (if there was such a thing) of *Bagheera*.

We ghosted by Gray's Lightship about midnight only to run into a breath of air from the north which forced us to douse light sails and get down to working canvas to beat the three miles up to buoy No. 5, where the course changed for the last 25 miles down the Straits of Mackinac.

At last the corner was turned just before daylight, and then the wind let go again, with *Quicksilver* somewhere out ahead, and no way of telling how far. When daylight came we saw her some two and one-half miles ahead, but no sign of the "Q" boats. They had slipped along in the night zephyrs and were out of sight ahead. Nothing was in sight astern.

That last 25 miles to the finish took the leading cruisers ten hours to sail. The racers did somewhat better, for *Princess* finished at 8:15 A.M. and *Siren* 1 hour, 41 minutes behind her. By hard work *Bagheera* slowly brought *Quicksilver* back until, with the finish in sight, she was hardly more than a mile ahead. Here she picked up a better breeze from the east and, close-hauled, the staysail schooner slid across the line at 11:22:21 A.M., followed 40 minutes later by *Bagheera*. With 3 hours and 25 minutes allowance, the latter had nothing to worry about except as to those astern, and, as the wind dropped to almost nothing in the early afternoon, she did not worry long about these.

Then came a long wait, while the crews of those already in were making merry. It is strange how callous sailors become, after they have finished a race, to those caught out in a calm behind them.

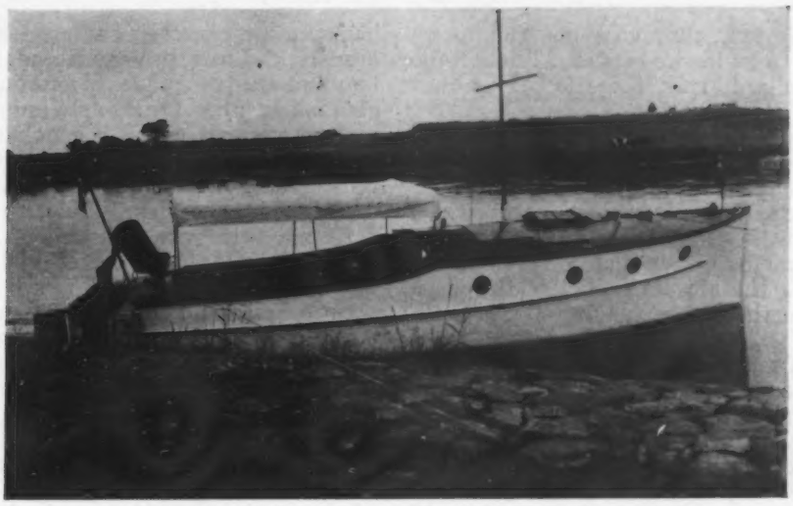
Hope, in the racing division, drifted across the line just before three in the afternoon, with Milton Knight's *Bimesa II* only 26 seconds behind her, and J. R. Lowe's *Ponjola* not far away. The latter had sailed a fine

(*Continued on page 92*)

Left. The schooner "Privateer," owned by Clark Wright and A. B. Scott, a veteran of many Mackinac races

✦

First place in the Racing Division was yielded by "Siren" (right) to "Princess" this year, with "Siren" accounting for second place



"Marco Polo" is a raised deck cruiser, 28 feet in length, built of steel

The Cruise of the "Marco Polo"

Part I—From the North Sea to the Rhine

By BEN AMES

WITH a resounding crash the bottle broke. "I christen thee *Marco Polo*," came in that thin, unreal voice that always overtakes women when they are allowed to break a bottle of wine. It was a perfect day for it. The Weser sparkled in the sunlight. Abeking and Rasmussen blew all their steam whistles. Even the old dredger in midstream saluted. With the Rhine wine running down her handsome prow, our new ship took to what we hoped would prove her native element. Mr. Rasmussen looked as pleased as though he had launched a 75-Square-Metre; Jane was as delighted as though she had christened another Transatlantic racer; and I was as happy as though I had just been given command of a full-rigged ship.

For while *Marco Polo* was neither a clipper nor a racing yacht, great things were expected of her. In her Jane and I expected to cruise to the Black Sea — 3000 miles through the canals, the Rhine, the Main, and across the mountains into the Danube.

Lacking the two important requisites — time and money — to have a new boat built, we had searched for a fortnight before finding *Marco Polo*. A raised deck cruiser, she is 28 feet long and draws two feet of water, which I have since found, when pushing her off the mud, comes just to my knees. Built of galvanized steel, we do not worry about her rusting or leaking. But like other motor boats I have known, I can't help thinking her engine room, which is really a mahogany box in the cockpit, is her weak point. In this there is a beautiful 6-cylinder engine built with a great quantity of aluminum. Jane takes a very disparaging attitude toward it, and at times when I am deep in grease refers to it as the Whited Sepulcher. After buying the boat I found that the manufacturers had discontinued their marine engines a few years previously, but were still pleased to sell parts.

Below — that is, one foot below the cockpit — the cabin is spacious with two bunks, bookcases, galley and buffet. Forward are the "usual domestic offices," and this impresses the bargemen who have visited us most. Under the skylight in the cabin I can stand upright, but I find it best to take my shaving sitting down.

At present there is no small standardized cruiser built in Europe for use on the canals, and with the variety of opinions expressed it is difficult to find what is best suited for an inland voyage. The strength of the streams and the depths of water are widely and variously estimated. At this point, after due familiarity with the various little eccentricities of *Marco Polo*, I should think it would be much more satisfactory to buy a standardized boat in which all the gadgets and machinery had been tried and tested in many boats, all exactly alike.

Buying a boat in Germany was not as simple as I had imagined. Locating the boat and discovering that the owner wanted to sell was only the first step. There ensued days of pure conversation. On the first day, after a four-hour session (in German, of course), the owner made a decisive statement of some kind. All present looked pleased. The deal, then, had finally been closed. "He says he thinks we had better go and drink some beer and then talk about the price," said my interpreter. After three days punctuated with innumerable beers and schnapps, I had bought a boat, following the correct procedure.

With the late afternoon tide we left Lemwerder in a pouring rain, and in less than an hour were in Bremen, having located all the leaks in the cabin-top. What we saw of Bremen was through the downpour — gabled buildings, docks, barges and channels leading into blind alleys. At the Kaiser Brücke we stopped to pick up a friend who piloted us to coffee and schnapps at the Weser Segel Verein.

Above Bremen we entered our first lock for a rise of eight feet, and clung, bobbing and swinging, to the slimy ladder in the wall. There is no charge for pleasure boats through these locks, which are operated by the

electric companies. We went through alone, and, as we left, the gates opened to let in two canoes. Although the Weser here is a canalized river, there is a four-knot current.

At Horstedt our three guests went to the Fahrhaus, a fine little inn whose guests are all people from the river. In front of the Fahrhaus there are small docks for canoes and sailing boats. Large clean rooms cost 35 cents a night. Horstedt is a little village lying behind the dyke, with a dozen thatch-roofed houses and two storks. The only sound disturbing the absolute quiet of the night was a clattering, like that of castanets, of the birds' beaks.

After a breakfast of raw ham, black bread, salami and eggs, we were off. The river narrowed, winding through very pretty green farmland, with black and white cows on either bank, and the current strengthened. We were cutting a corner to get out of the current when, with a loud grinding, we were aground for the first time. An oar over the side brought up one foot eleven inches. All hands in the bow and a big shove with the oar, and we slid off. We expect to go aground about a thousand times this summer and it was good to know that this was a matter for an oar, and not a case of having to jump overboard or kedge with an anchor. When you go aground in a steel boat the sound produced is such as one might expect if the bottom were coming off. Every tiny noise is magnified with the effect of a loud speaker.

By lunch time it was raining hard again, and a cold wind blew down the Weser. This was only natural. North Germany, like England, has nine months of winter and three months of damn bad weather. Having no food on board, we landed to hunt for a *Gasthaus*, wading through deep mud for our fourth straight meal of ham and eggs, which is apparently the one hot dish always on tap.

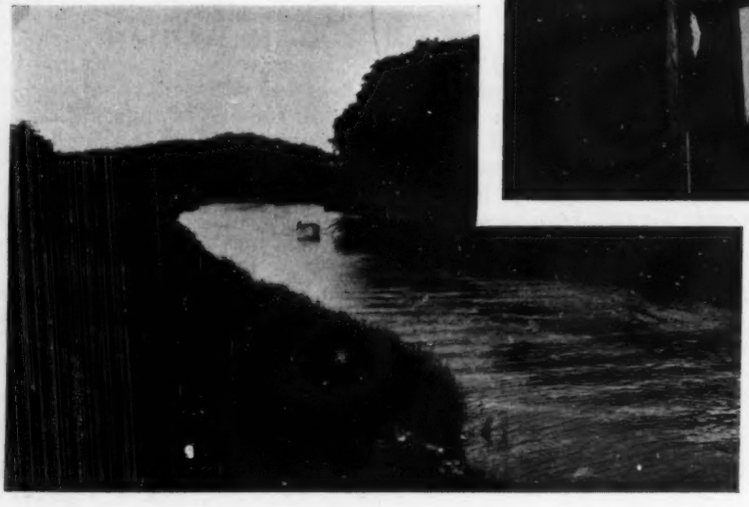
It would be "*besser*" to wait further away from the lock, the skipper of a big motor barge told us when we came right up to the gates at the Dörverden lock to get a good view. The lock is over 1100 feet long, with a rise of sixteen feet. We took his advice. When they let the water out of that lock and we saw the boiling cauldron where *Marco Polo* had been, we thought our friend could have used a stronger word than "*besser*."

At Dörverden the engine stopped for the night, and early the next morning the two local mechanics, with my assistance, hunted for the trouble. When we took the magneto apart we found the shellac had melted and run all over the inside, clogging things up so thoroughly that it no longer resembled a magneto. We worked hard all day and fixed that, but still the engine ran like a consumptive.

Meanwhile, Jane went shopping—that is, digging for new potatoes and pulling up lettuce. The store could produce practically nothing to eat for the simple reason that all the villagers raise their own foodstuffs. All have their own gardens, cows and pigs, bake their bread, cure their own hams, and make their sausages and butter. The storekeeper, who was also the Standard Oil man, had only two-and one half gallons of gasoline in stock, but we were glad to have that. He brought out a five dollar bill. "Is it really American, and is it genuine?" I examined it carefully. It seemed to look much as I remembered five dollar bills looking, and I couldn't recognize the number as being one of the Lindbergh bills. He was relieved. He had gotten it from a sailor who came from Bremen.

When the local mechanics finally gave our engine up as a bad job, we resigned ourselves to returning all the way to Lemwerder to get it in shape and make a fresh start. We headed back, spitting and coughing on three or four cylinders. But we had gone no more than a mile when the Whited Sepulcher, seeing that we were in earnest, started hitting on all six. We turned around again, breasting the current in good style until dark at nine thirty. We were just effecting a fine landing at Drackenburg when the engine stopped. Heading out of the swift stream we cracked quite neatly into the moored ferry as we lost steerageway. We telephoned from the *Gasthaus*; one room of which is the telegraph and postoffice. While waiting for the call we were ushered into the pitch dark *Gaststube*. The barmaid drew beer in the dark, glasses clinked as the guests drank in the dark. Yet there were electric lights.

"Maybe they'd turn on the lights if we ordered a beer," Jane suggested. But they didn't. Drinking there in the dark without a word — we might have been in a Chicago speakeasy waiting for a rival gang to show up. The woman spoke English; she lived in Brooklyn and was here to visit her parents at the *Gasthaus*.



"Marco Polo" coming down the Ems-Dortmund Canal which goes from Emden, on the North Sea, to the Rhine

"Oh, it's quite a bit different from Brooklyn. People don't talk so much about the depression here — they've had it so long they're used to it. But I'll be glad to get back to Brooklyn." We did not argue the point.

Without the help of a mechanic this time, we discovered that the engine was having magneto trouble again. The son of the local blacksmith and I took it apart quite satisfactorily, but not being able to get it together again, started for Nienburg, the big town nearby. I saw little of the country from the back of his motorcycle, hanging on to the iron grip with one greasy hand and the magneto with the other.

At Minden, where we expected to enter the Weser-Ems Canal, heading for the Rhine, the proprietor of the bookstore where I had bought a canal map had shown me a picture of the canal going *over* the Weser at Minden on a bridge. The map showed no locks.

"But how can we get into the canal?" I asked, mostly with my hands.

"Oh yes, you can get under it. There is ten metres of clearance," he kept telling me. There was no way I could find out how to get into that canal, ten metres above the river, except by going to Minden. Figuring closely, we should find out by dark. But we didn't figure everything. Ka-ploo! The engine stopped, and no wonder. We were out of gas. With the current, we drifted close to the shore and I threw the anchor at a small protruding point. Our seven-mile walk for gasoline was made more refreshing by a steady rain.

Tying up in a town affords as much privacy as that allotted the proverbial gold fish. People stand for hours just staring at you. Small boys with their eyes glued to the portholes watch you brush your teeth, and for some reason your every small move is regarded with the greatest interest.

"We can't stand up any longer. Please, may we come on board and sit down?" the small boys who had been standing staring at us in Minden finally asked. We couldn't turn down this novel request, so we had a self-appointed bodyguard for the rest of our stay. The language barrier didn't trouble them — we understood each other perfectly.

There *was*, after all, a way of getting into the Weser-Ems Canal, we found — fine, big locks. But we arrived at five o'clock and as there were no more ships going through that day we had to wait until the next morning. Conveniently located nearby is the Minden Brauerei, with a beautiful garden well equipped for the wicked business of serving beer, with slides, swings and "teeter totters" for the dozens of children playing there.

At the canal office we were charged seventy-five cents for permission to go from Minden to Duisburg on the Rhine. This is the regular charge for pleasure craft. There is no charge for the use of the locks themselves, but you must go through with one of the barges — they pay a good fee. If you want to go through alone, or if there is no other boat, the cost is about two and one-half dollars for each lock. We entered the Minden lock, passing under the huge gate, which is raised perpendicularly, and were lifted 45 feet to the level of the canal.

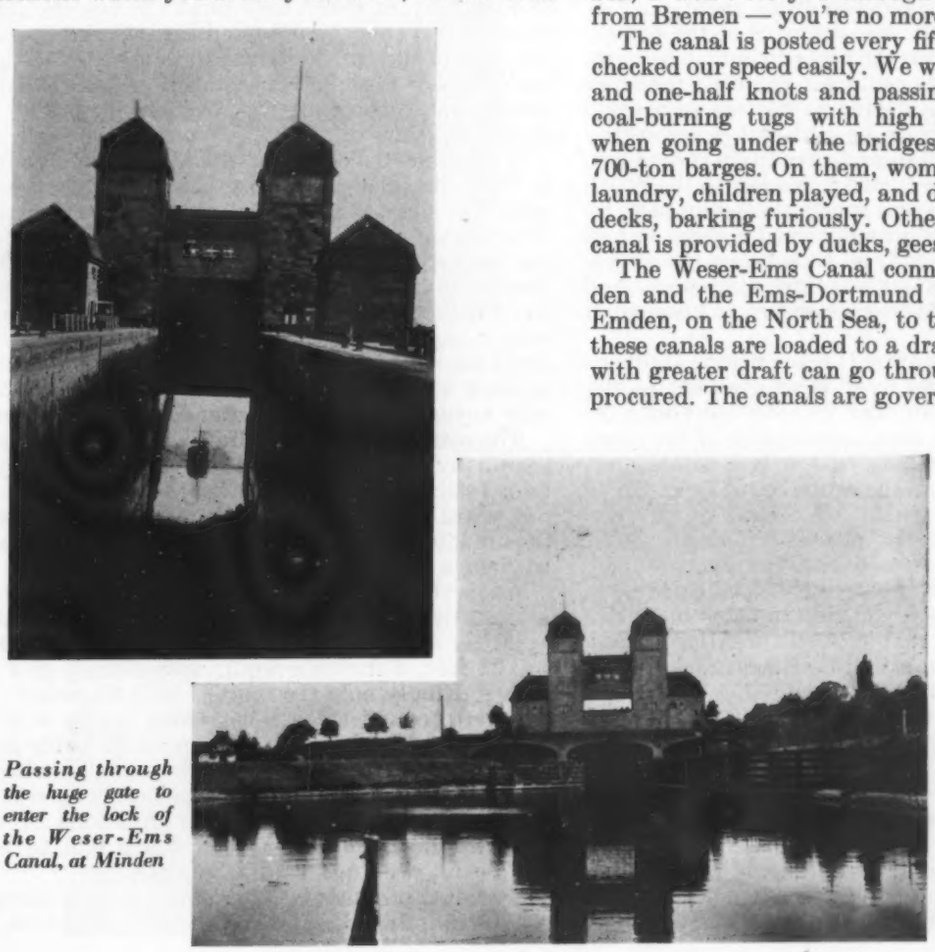
We had been rather reluctant, when asked our destination, to come right out and admit that we were bound for the Black Sea, but the lockmaster caught us off our guard and we blurted out the truth. He jeered.

"If you ever tell me again you are going to the Black Sea, I won't let you through here. I know that boat from Bremen — you're no more Americans than I am!"

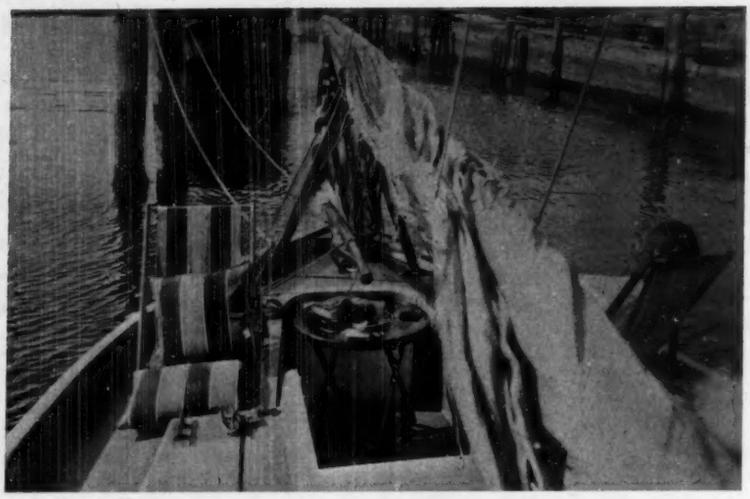
The canal is posted every fifth of a kilometre and we checked our speed easily. We were making exactly seven and one-half knots and passing tow after tow. Little coal-burning tugs with high stacks which fold down when going under the bridges were towing strings of 700-ton barges. On them, women were hanging out the laundry, children played, and dogs ran the length of the decks, barking furiously. Other traffic that crowds the canal is provided by ducks, geese, and goslings.

The Weser-Ems Canal connects Hanover with Minden and the Ems-Dortmund Canal, which goes from Emden, on the North Sea, to the Rhine. The barges on these canals are loaded to a draft of six feet, but a boat with greater draft can go through if a special permit is procured. The canals are government-owned, as are the tugs. Most of the barges are owned by big factories, but a few are privately owned. The tugs have a regular run, back and forth, like railroad locomotives, each tug picking up barges to tow on its stretch. There are many Dutch motor-driven barges on the canals, seagoing barges with their masts and sails folded down. They are faster than the other traffic, but as they are not allowed to pass they

(*Continued on page 82*)



Passing through the huge gate to enter the lock of the Weser-Ems Canal, at Minden



The cockpit and after deck provide unusual comfort for a 30-footer

Some Deep Thoughts on Shoal Draft

By

JAMES S. PITKIN

ONCE I ventured, quite thoughtlessly no doubt, to express the opinion that deep draft was better for deep-sea sailing than shoal draft. Shortly thereafter I was amazed to learn how many shoal draft boats there were, and how widely they were distributed. And it was interesting to note that the latent bellicosity and depth of feeling of a yachtsman may, and very frequently does, bear an inverse ratio to the depth of his yacht.

There was, I remember, one defender of the centerboard type who wrote from the State Prison at Auburn, N. Y., to say that previous to his enforced residence there he had sailed from Maine to Florida in a small centerboard yawl. This craft, he said, was so seaworthy that he might just as well — and as matters turned out, might very much better — have sailed her to the South Sea Islands. This opinion was substantiated, in part, by a resident of New Zealand who informed me that he had sailed a shoal draft yawl far and wide below the Tropic of Capricorn where the water was three miles deep. And if that was not deep-sea sailing, he wished to know what was.

And so I learned how unwise it is to criticise another's preferences. "Live and let live" is an excellent motto, and "Live and learn" is another. In accordance with the latter, I have achieved a keen appreciation of the many excellent qualities pertaining to the true shoal draft hull, as distinguished from the centerboard type. Let us consider them for a moment.

To do the thing properly, one should begin with a dissertation on the Norsemen and the extraordinary voyages they made in their extremely shoal draft hulls. For it is remarkable, when you stop to think of it, that boats like theirs should have crossed the Atlantic. Just imagine putting to sea in a hull that measured 101 feet overall and drew but 3 feet 8 inches!

And yet, according to Captain Anderson, who sailed a replica of that ancient Viking vessel, the Gokstad ship, from Bergen to Newport, R. I., in 1893, those shoal draft hulls were quite equal to Transatlantic voyaging, even under adverse conditions. At all events, Captain Anderson was reported to have maintained an average speed of nine knots, in spite of some exceptionally heavy going, which is better than some of our modern yachts have done.

This seems to show that a hull of extremely shoal draft may be seaworthy. Or perhaps it merely confirms Dr. Claud Worth's assertion that "the most important factor in determining the seaworthiness of a yacht is the crew, next comes the gear, and last of all the form of the hull."

Nevertheless, there have been no end of shoal draft hulls that have made long voyages. And though, in some instances, as in Captain Voss's 40,000-mile jaunt in his 38-foot *Tilikum*, which drew but 24 inches, the apparent seaworthiness may have been due to the skill and daring and luck of the crew rather than to the lines of the hull, yet there have been other instances which have demonstrated most convincingly that seaworthiness is not wholly a matter of draft.

It would be tedious to enumerate the shoal draft hulls in which experienced seamen have made deep-sea voyages. For there is a long list of them, varying in draft from thirteen inches to four feet. Possibly a draft of four feet may seem deep, by comparison, but when Captain Slocum put to sea in the *Spray*, which measured 36 feet 9 inches overall, with a draft of 4 feet 1 inch, there were many yachtsmen who felt that her draft was entirely inadequate. Just as there were those who predicted disaster when Captain Arapokis set out on his 22,000-mile voyage in the 37-foot *Pandora*, drawing four feet.

The point is that a shoal draft hull may be exceedingly seaworthy — infinitely more so than the average yachtsman realizes. And a centerboard is not essential for windward work. Of course, there must be an adequate area of lateral resistance, but it is possible to obtain this without a centerboard or without a deep keel.

A few years ago, Mr. C. Andrade, Jr., conducted some informative experiments with a hull of the whale boat type. He designed a sloop-rigged double-ender, measuring 28 feet, 8 inches overall, with a draft of 2 feet, 6 inches. Kindly note the draft — only 30 inches! Would you care to undertake a coastwise voyage in a sailing vessel that drew less than three feet? Probably not. And yet Mr. Andrade did. He knew that a hull having a long keel, with good drag and considerable lateral plane, united with the symmetrical proportions of a well-designed double-ender, would enable him to work to windward, even under adverse conditions.

In actual practice, he found that his little sloop would work to windward under her jib alone. And that, as you

know, is more than many centerboard sloops will do. And as for her seagoing qualities, he worked offshore, when caught off Newport in a southwest gale, while a large cruising yawl, unable to weather it, piled up on the rocks near Beavertail.

And so, you see, in a properly designed hull a very slight draft will suffice. Not that a hull of that type will sail as close to the wind as it might if it had more draft, but it will sail closely enough for all practical purposes. For the business of beating to windward is obsolete; everyone has a motor. And if it so happens that you enjoy beating to windward, why the less closely you point, the more beating you will do, and the more prolonged will be your enjoyment.

Unless you are very young, you will remember Mr. L. D. (Larry) Huntington, Jr., formerly of New Rochelle. For the benefit of those who may not recall him, I shall add that Mr. Huntington was among the first to design small, ocean-going single-handers. He designed several for his own use, in this way supplementing the theories of the drafting room with the practical knowledge that can be acquired only at sea. His boats became famous, and so did he. Some years ago, he moved to Florida, where he is able to sail twelve months in the year, instead of four or five.

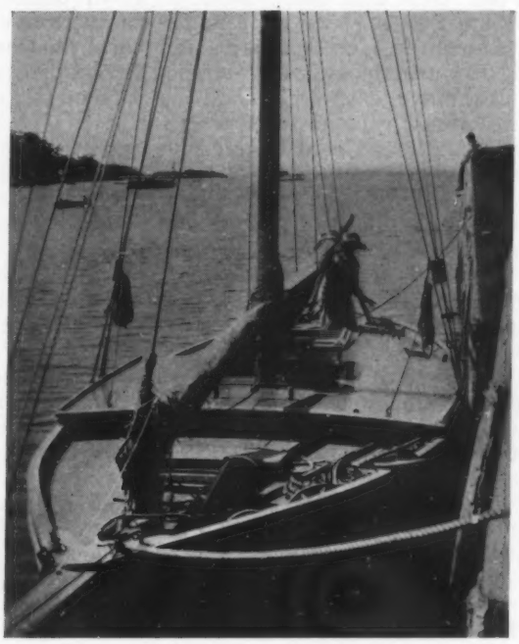
Recently, Mr. Huntington designed a 30-foot cutter-rigged, double-ender with beam of 9 feet 6 inches and draft of 3 feet 5 inches. She had 1500 pounds of lead in her keel, and about the same amount embedded in cement beneath her cabin floor. Last year I bought this boat, and named her *Astrid*, because of her Scandinavian antecedents.

Before telling you more about her I shall acknowledge that an owner's opinion of his boat is as biased as a fond parent's opinion of his offspring. But in this instance the situation is that of an owner discussing his twenty-first boat, which is like, let us say, a parent discussing his twenty-first child. Under such circumstances one should be able to view the subject more dispassionately and more critically and, I presume, more fairly.

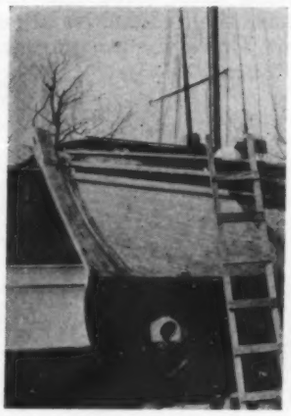
A very precise and somewhat pedantic observer once remarked that *Astrid* is not really a double-ender, because her bow and stern are not doubles, or duplicates, of one another. This impressed me as being exceedingly hypercritical, since the bow and stern are quite similar in appearance above the waterline, the actual difference being due to a slight modification of the after sections, to afford adequate bearing when under power. The justification of this modification is apparent in that she settles very little, even when driven with her 40 h.p. motor wide open.

The moment you enter her cabin you realize, if you have had much experience with small seagoing yachts, that this cabin is different. It is different because it was designed by a man who has spent some thirty years in designing, building, and sailing deep-sea single-handers. Its very simplicity is deceptive, for in its design there is much of the art that conceals art; the skill that makes the feat seem so simple. So simple that one undervalues it. There are, for instance, innumerable ingenious devices that I did not appreciate until I had lived with them. For a time, I thought that I could improve them, but luckily I had no opportunity.

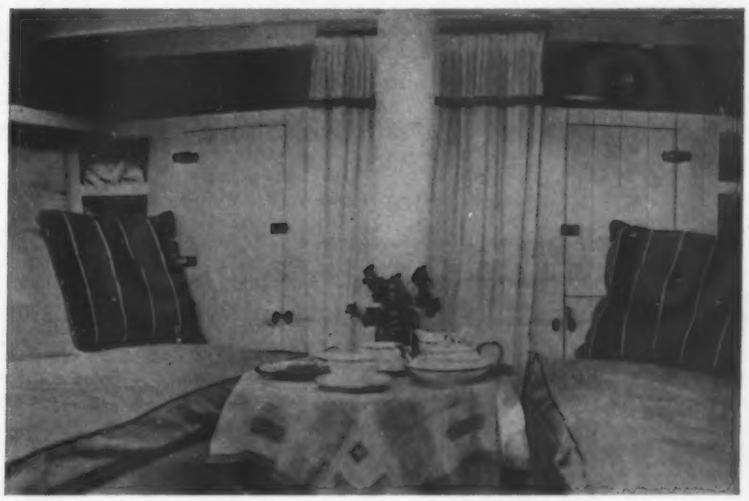
Many able architects would have attempted to obtain

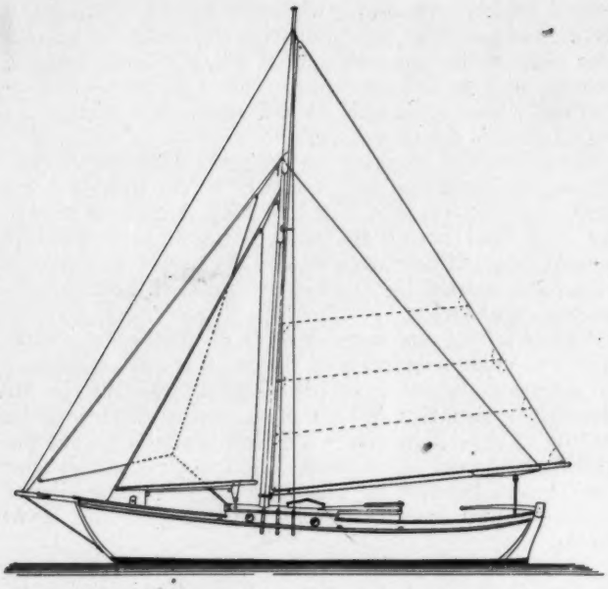


"Astrid," looking aft, showing space gained on deck and below by the raised deck amidships. (Below) Stern of "Astrid." Though a keel boat, she draws but 3 feet 5 inches



The main cabin is most attractive and roomy





Sail plan of "Astrid," designed by L. D. Huntington. Carrying the house out to the sides has not spoiled her looks in any way

more headroom in the cabin. But Mr. Huntington knew better. He realized that seaworthiness was of greater importance. And he believed, as many experienced yachtsmen do, that foot room, or breadth of floor, contributes more to one's comfort than headroom. And so he carried up the sides of the cabin trunk flush with the sides of the hull. This gave the cabin a maximum interior breadth, and formed a raised deck amidships that not only increased the structural strength but also increased its latent buoyancy when heeled. Thus an architect's estimate of her stability shows a positive righting moment at 90 degrees, whereas the usual limit for shoal draft hulls is, as you know, around 60 degrees.

While keeping the cabin trunk low, with 4 feet 10 inches under the carlins, Mr. Huntington displayed his adroitness by placing a large skylight athwartships, with headroom of 5 feet 9 inches beneath. Realizing that in the mind of the average yachtsman the word "skylight" is synonymous with the word "leak," I hasten to interject the assurance that this skylight does *not* leak. Not a drop! I know that you won't believe me, but it really doesn't.

But the curious thing about the skylight is that by affording headroom across the full width of the cabin floor it gives an impression of full headroom throughout. Any number of visitors have reported that *Astrid* had full headroom in her cabin. They recall so plainly the ease with which they strolled about. That's clever designing!

There are two wide bunks fitted with spring cushions, with loose mattresses on top of them. During the day the mattresses are folded back against the sides of the hull to form backs for the cushioned seats. The mate wishes me to call attention to the convenience of this loose mattress arrangement, with special reference to the ease with which sheets and blankets may be tucked in at night, and hidden from sight during the day. It is infinitely easier than the Pullman berth idea. Also, she recommends unreservedly the material with which the cushions and mattresses are covered. It looks like a buff linen with a fine green stripe. But it appears that in reality it is an imported material, used by British yachtsmen, which possesses the peculiar and somewhat mysterious quality of repelling external and expelling internal moisture. At any rate, it doesn't become damp.

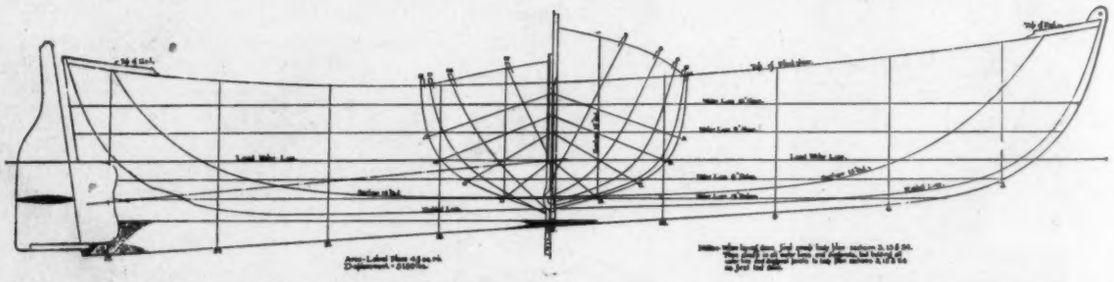
The galley is on the port side aft, between the bridge deck and the cabin bulkhead. There is an enameled sink, and one of the new type galley pumps that resemble faucets for running water. Beneath the sink is a stowage space for pots and pans. Next forward, comes the copper-lined stove space, with its two-burner stove and oven. Above the oven there is a shelf, one of the things I failed to appreciate, at first. It seemed an odd place for a shelf. But now it seems more odd that I failed to understand the reason for its being where it is. It is there in order that salt and cereals and flour and crackers and other things that you wish to keep dry and crisp may be placed on it. This is one of those seemingly unimportant matters that actually add a great deal to the comfort of a summer's cruising.

To starboard, opposite the galley, there is a storage space for navigating instruments and other equipment that one wishes to keep within easy reach of the cockpit, and a commodious china closet.

You may have noticed the omission of an icebox. I noticed the omission with surprise and dismay. Instead of the customary icebox, in or near the galley, there was a wooden box, standing in the after end of the cockpit, painted white and brass-bound, somewhat after the manner of a seaman's chest. It was lined with metal, insulated, and divided into two compartments. Quite obviously, it was intended to serve as an icebox. At first, I thought that this was another thing that might be improved. But, in a very short time, I changed my mind. For this out-of-door device was so much easier to fill and to keep clean, and did away so completely with all odors of food in the cabin that when I found, to my amazement, that the ice lasted longer than in any of the regulation iceboxes to which I had been accustomed, my scorn changed to admiration.

At the forward end of the cabin there are two lockers that are more than four feet deep and wider than a clothes hanger. Being fitted with rods and hangers, like a wardrobe trunk, their capacities are a matter of some embarrassment. One's wardrobe appears so mea-

(*Continued on page 76*)



Lines of shallow draft keel sloop designed by C. Andrade, Jr. On a length of 28 feet 8 inches the draft was only 2½ feet

The Hudson River Sloops

Something About the Hudson River Type, and Its Forerunners

By

C. G. DAVIS

Up river, under the Palisades

WHEN the British captured New Amsterdam from the Dutch in 1664, the sloops, it is safe to say, were the typical flat-bottomed, leeboard craft of Dutch design. Under English rule, with an influx of English, Irish, Welsh and Scotch, no doubt the keel sloops familiar to those people gradually crept into use. The early sloops on the Hudson were all keel sloops drawing as much as twelve feet of water, or else vessels of light draft and fitted with leeboards, as were all Dutch sloops.

In the course of time, better to adapt the sloops to the trade on the river, the boats were made more shoal in body and fitted with a centerboard. It was found inconvenient to have to unload the deep keel sloop and put all her cargo on to smaller, shoaler sloops in order to negotiate the shallow reaches in the upper river to Albany. So the big sloops eventually became shoal enough to go up to Albany themselves. And while for sea voyages the three jibs of the early boats were convenient, it was a poor rig for navigating the squally river, and was succeeded by the big single jib that could swing across of itself, thus saving much laborious hauling over of headsails every time the sloop went about.

A leeboard Hudson River sloop of about 1780. The Dutch influence is very apparent

One is apt to imagine, as he peers in retrospect into the dim past, that the old boats were clumsily modeled, but there is evidence to prove the contrary. A vessel is not to be judged solely upon her appearance above water; the more important part is the underwater section, the part which must support the upper works and push its way through the water. Old volumes on naval architecture show anyone willing to investigate the subject, that for the purposes for which they were intended the underbodies of the old vessels were most beautifully modeled.

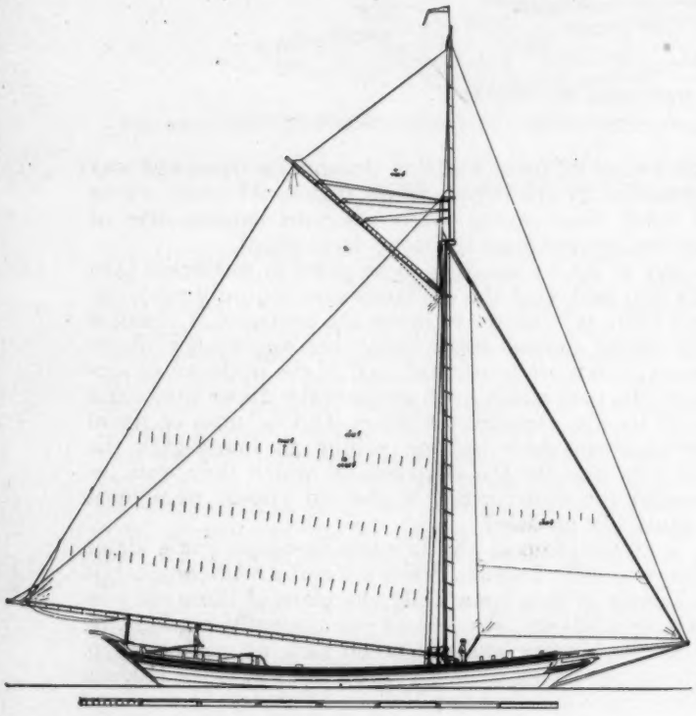
A 60-ton sloop in the London-European trade about the year 1800, found in Steele's *Naval Architecture*, is but a sample of how beautifully the plans of these old vessels were drawn. She was an exceptionally burdensome craft for her size and was noted as a fast sailing sloop. In comparing her with, say, the *Victorine*, of the Hudson River, we must bear in mind the differences in wind and water conditions under which the two operated.

Having the plans of these two noted sloops gives us an interesting study in models. The London sloop was, no doubt, just the kind of vessel the settlers in the American colonies built for trading with the West Indies and for coastwise voyaging in the early 1800's. Prior to this date, when the Dutch had relinquished New Amsterdam to the English, there were undoubtedly sloops of the leeboard and flat-bottomed type, as used in Holland, to be found on the Hudson and adjacent waters.

There were few people in the new colonies who had leisure to draw pictures of the boats then in use. Fortunately some drew pictures of the cities, or made maps of them, and, incidentally, in the foreground showed the kinds of vessels then in use. The so-called Duke's Plan, showing how the town of Mannados, or New Amsterdam, was laid out in 1664 shows twenty vessels. Thirteen of these were sloops. All of them were craft with that high deck aft which made a cabin in the stern, a style peculiar to the Dutch sloops. And in the Paul Revere sketch of Boston, made in 1774, similar sloops, except for the addition of a square topsail used on ocean going vessels are shown amid the shipping.

The river and sound craft were chiefly of the shallow, flat-floored type, relying on leeboards to prevent side drift when sailing "on-a-wind." They were most able under canvas and very burdensome for their dimensions — they could hardly have been more so without becoming canal boats. Yet for the smooth water of harbor, sound and river sailing, they were a type that fitted the needs and conditions admirably.

The difference in model between the deep, high-sided London sloop, designed for deep-water work, and the wide, low-sided Hudson River sloop, is due to the nature of the waters in which they operated. If the *Victorine* had to sail to Bermuda and negotiate the rough and tumbling seas met with in the Gulf Stream, she would be found a rather wet and uncomfortable craft for that trade, and this is the kind of water the English sloop met at the mouth of the Thames, in the Channel, and in the deep water of the rock-bound coast where she traded. The early American sloops were all keel boats, not unlike this London sloop, for they did trade across the Gulf Stream with the plantation owners on the islands in the West Indies and had to put up with the same rough and tumble of the sea.

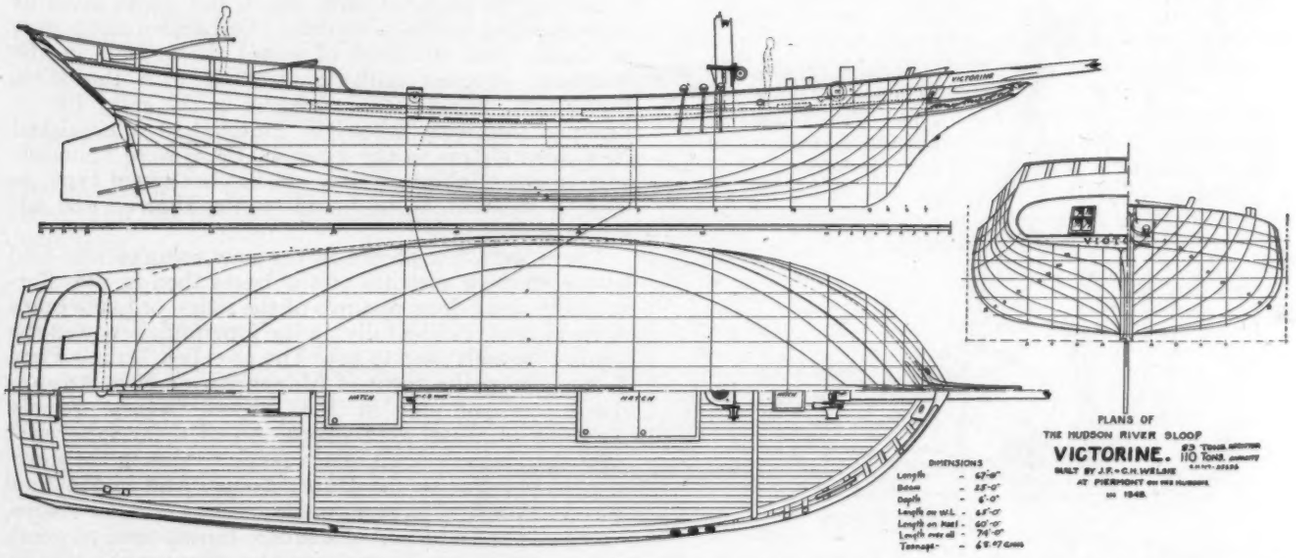


In 1780 five Albany capitalists formed a company and had a sloop built which they named the *Experiment*, of the following dimensions: 60 ft. long, 20 ft. 1 in. beam, 7 ft. 6 in. depth, and 75 77/95 registered tonnage. She was handsomely fitted out for carrying passengers between Albany and New York and proved such a success that in 1787 the company built another sloop of the same type and for the same purpose. At the close of the Revolutionary War this little keel sloop *Experiment* was sent on a voyage to China, under Capt. Dean, and returned to New York a year and a half later.

This may seem a venturesome voyage for such a small vessel, yet there is evidence of many more such undertakings. Capt. N. B. Palmer, in 1821, took it all as part of his everyday work to sail the little Connecticut sloop *Hero* clear away down south beyond Cape Horn, after seals, in company with several other sealing vessels; and John Boit, Jr., in 1794, had sailed the 89-ton sloop *Union*, a craft of about 60-foot length, from Newport, R. I., around the Horn to the Northwest Coast in quest of seals, and then had squared away for China, leaving there in March, 1796, and arriving home at Boston on July 8th, 1796, thus circumnavigating the globe in his voyage. The 90-ton sloop *Lady Washington*, in company, part way at least, with the ship *Columbia*, 212 tons burden, rounded Cape Horn, where the two vessels became separated, and the sloop was the first of the two to arrive upon the Northwest Coast in 1788, where for years she traded between there and China.

So it is quite evident that sloops were employed in deep-water voyages with the same confidence that ships were. In model there was but little difference between them; the *Lady Washington* was, in fact, later re-rigged as a square-rigger, a brig.

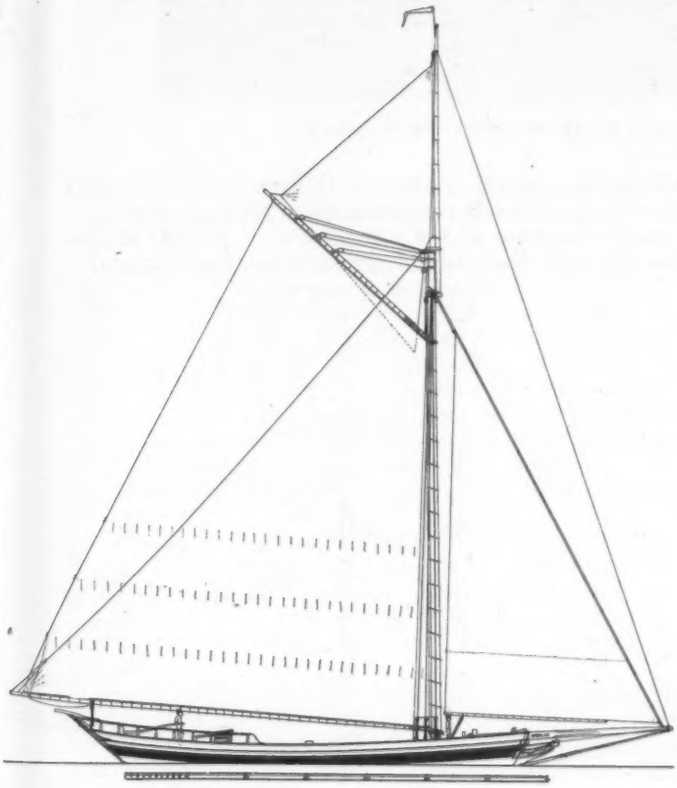
Before the first steamboat, the *Claremont*, made her memorable run up the Hudson River, in 1807, the only means of conveyance between New York and Albany was by stage-coach or sloop. For many years thereafter, though the number of steam-propelled vessels quickly



Lines and sail plan of "Victorine," considered the fastest sloop on the Hudson River. She was built in 1848 by J. F. Welsie, at Piermont, N. Y.

multiplied, they were such slow, crude affairs, taking two days for the run to Albany, that the packet sloops easily maintained their supremacy in the passenger carrying trade on the river. It was not until a further encroachment of steam by the opening of the train service in June, 1847, and final completion of the Hudson River Railroad up to East Albany in 1851, that the skippers of the sailing sloops began to feel the loss of their prestige and had to resort to the carrying of freight.

As we scan the list of sloops we notice that back in the 1820's and 1830's the sloops were of large size; the largest of all was said to be the *Utica*, built at Albany in 1833. She was of 220 tons measurement and 96 feet long.



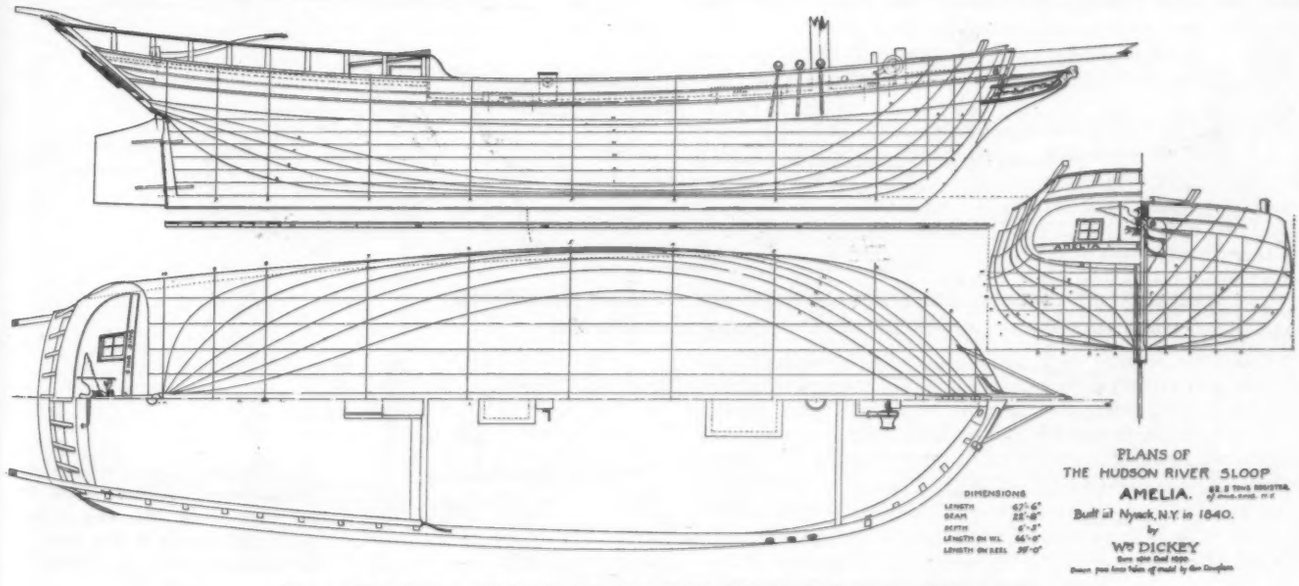
The *Illinoise*, built in Newburgh in 1818, was a sloop of 150 tons and measured 84 feet length, 26 feet breadth, and 12 feet draft. Other big sloops of this period were the *Green County Tanner* (1832), of Catskill; the *Canaan* (1826), of Albany; the *Columbia*, *Catskill*, *Canal*, *Erie*, *Eclipse*, *Lafayette* and *Ohio*, all of about that period, while in later years we find fewer of the big sloops being built and sloops of about 60 tons predominating.

In 1810, there were 206 sloops sailing on the Hudson engaged in trade. These were of both the keel and leeboard types, and the enrollment records of the New York Custom House show no less than 450 sloops in this trade, documented in this one district between 1790 and the early 1860's.

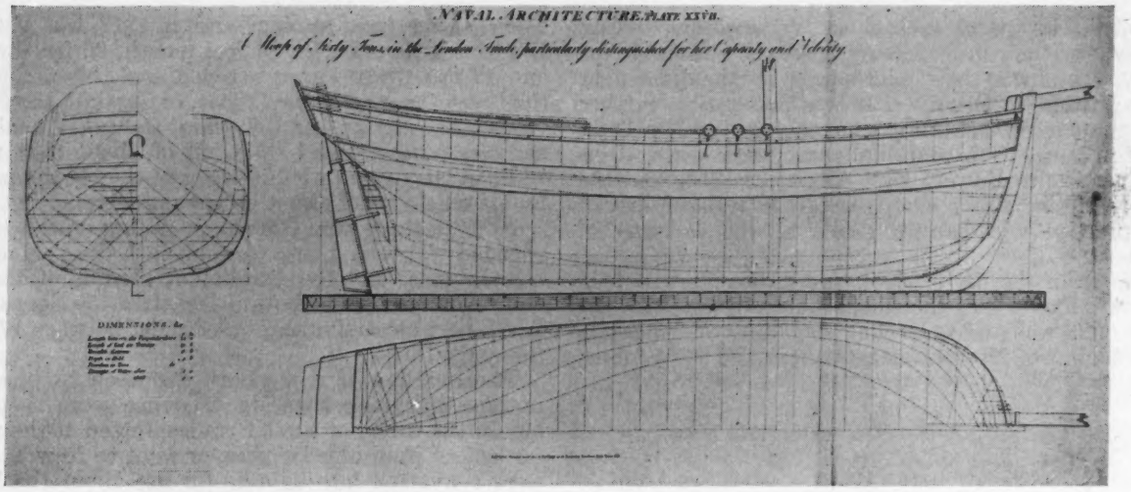
The building of new sloops dwindled to practically nothing by 1860; those in existence wore themselves out in the brick, or similar trades, rotted at their docks for lack of profitable freights, or went to New York and were converted into lighters for use about the harbor. Thus died one of the most picturesque features of the Hudson, its famous sloops.

Life along the Hudson River in the days of the packet sloops was serene and calm as compared with the present, yet the inhabitants of those days considered themselves busy-bodies, even if the voyage to New York did occupy a couple of days, sometimes longer. And preparation for the trip occupied the good housewife for days in advance, including, as it did, a hamper of home-cooked supplies and a suitable wardrobe, neatly packed in a trunk. The river folk used to have their favorite sloops and skippers, and would wait several days until they knew Capt. Uriah would be due down river. When the eventful day arrived the handy-man around the farm would go down to the little dock or landing on the shore, hoist a little white flag to the top of a small flag-pole and watch up river for the sloop to heave into view.

On the sloop, Capt. Uriah, on the quarter deck, besides conning the sailor who was steering the big sloop with its long tiller, was sweeping the landing that dotted the shore with his telescope. Spying the little white flag at the landing where the farmer voyager and his household were waiting, he would order the helmsman to steer over that way. Most of the farmers had various small boats tied up where they would be afloat



Lines and sail plan of "Amelia," built in 1840. Note the high stern and stern ports


NAVAL ARCHITECTURE. PLATE XXVII.
A Sloop of Sixty Tons in the London Trade, particularly distinguished for her Capacity and Celerity.
DIMENSIONS, &c.

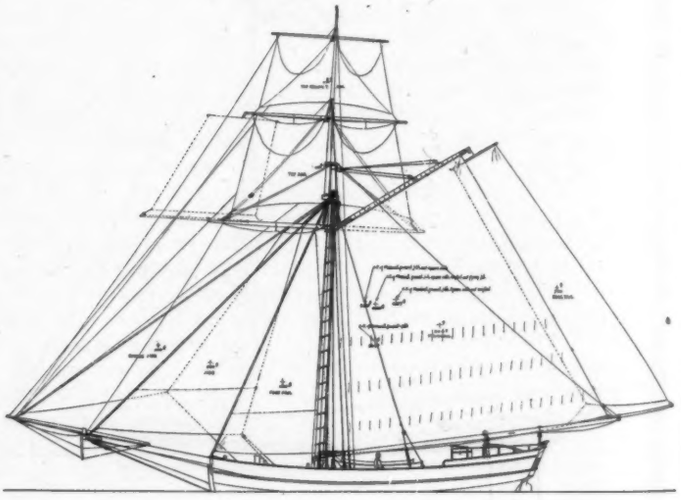
Lines of the London packet. She was a keel sloop used in the Atlantic trade, about the year 1750

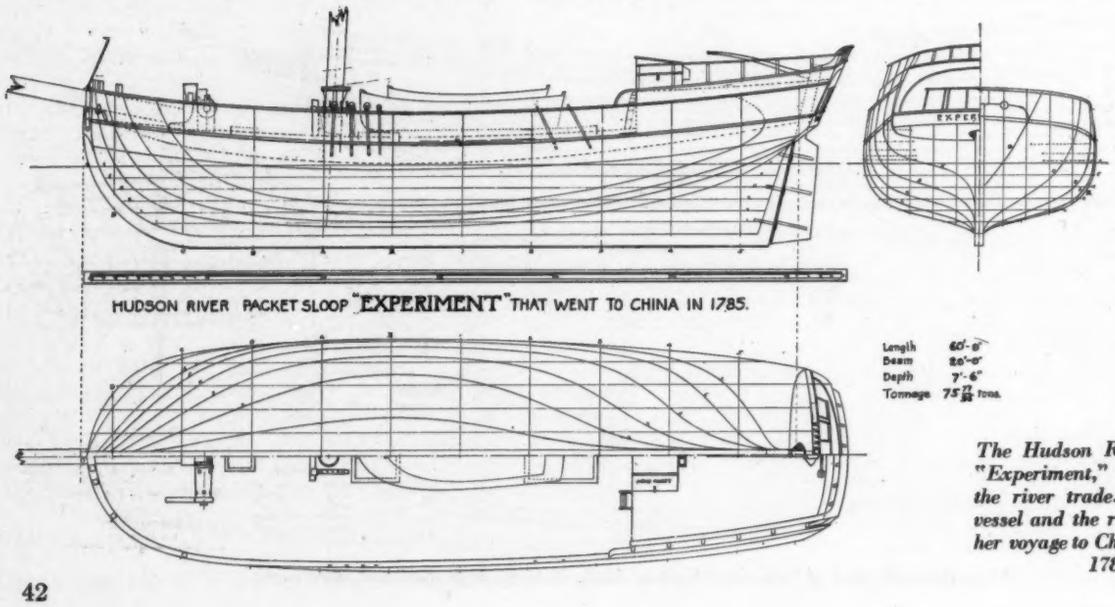
at low tide or hauled up on the beach, and there were always men on the farm who were as good sailors as they were farmers who could row the master out and pull alongside the sloop when she luffed up into the wind and hove to. If the wind and tide were fair, this saved much time, as passenger and baggage were quickly transferred to the sloop, which then filled away on her course with much waving of handkerchiefs aboard and ashore. Sometimes the sloop had to heave to and send her yawl boat ashore to pick up the passenger and baggage, or light freight, or even to haul in alongside a dock and take aboard a horse or a cow or some farm produce consigned to a merchant in New York.

There were times when the strong flood tide prevented the sloop from making any headway against it in the light breeze, and the sloop had to anchor and wait for a wind or for the tide to turn. It was such little delays that consumed the time and lengthened the voyages. At other times, with a strong fair wind and a fair run of tides, the same trip was made in a day, for those old sloops were fast sailers and were manned by men who could handle them most ably.

There was always great rivalry between the sloop captains of the various towns along the river as to who had the fastest sloop, and besides the many scrub races indulged in when they chanced to meet in their trips to New York and back, it was not an uncommon event, on a public holiday, to see a regatta or a special match race between two boats indulged in by the rivermen.

(Continued on page 80)





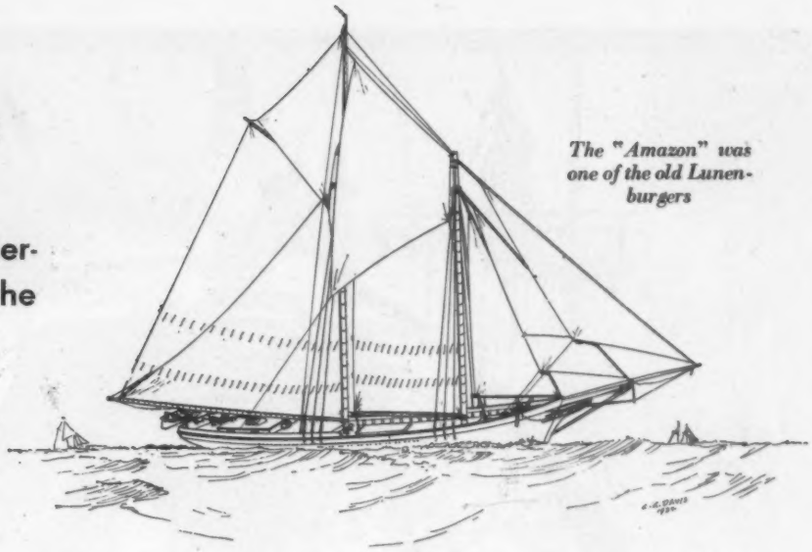
The Hudson River Packet sloop "Experiment," built in 1780 for the river trade. She was a keel vessel and the rig is that used on her voyage to China and return in 1785–86

Old Coasters

Something About the Fishermen Which Were Used in the Coasting Trade

By

WILLIAM DOUGLAS

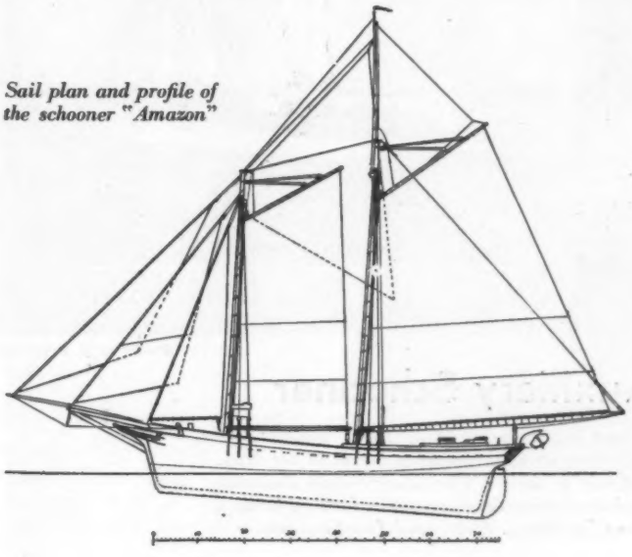


The "Amazon" was one of the old Lunenburgers

IN a recent number of YACHTING (see issue of November, 1931) there appeared the design of the *Coaster*, a type of vessel which interests me greatly. I have often wondered why more yachtsmen do not incline to this type of vessel, or why they do not go a little farther back and adopt the fisherman of about sixty years ago. Many of these fine schooners, both American and Nova Scotian, were in the coasting trade twenty-five years ago. Coal and lumber were the chief freights, their tonnage running all the way from forty to ninety-nine tons. It was not unusual for one of them to load a cargo of coal of double her registered tonnage. Her scuppers would be about level with the water, and they could sail loaded in this fashion.

Captain Smith, of the *Amazon*, told me that she once logged eleven knots by the patent log when deep-laden with coal. The wind was over the quarter and the water smooth. He said that the solid water was rushing in through the hawse pipes and running like a brook over the deck.

The *Amazon* was one of the old Lunenburgers. She had been owned in Newfoundland, and had been to the ice for seals. She was very strongly built. Her planking was four-inch hardwood and she registered only sixty-seven tons. Talk about your cabin space — and the forecastle! They would be a revelation to the modern yachtsman, and between these two bulkheads was a space that would hold one hundred tons of soft coal.



Sail plan and profile of the schooner "Amazon"

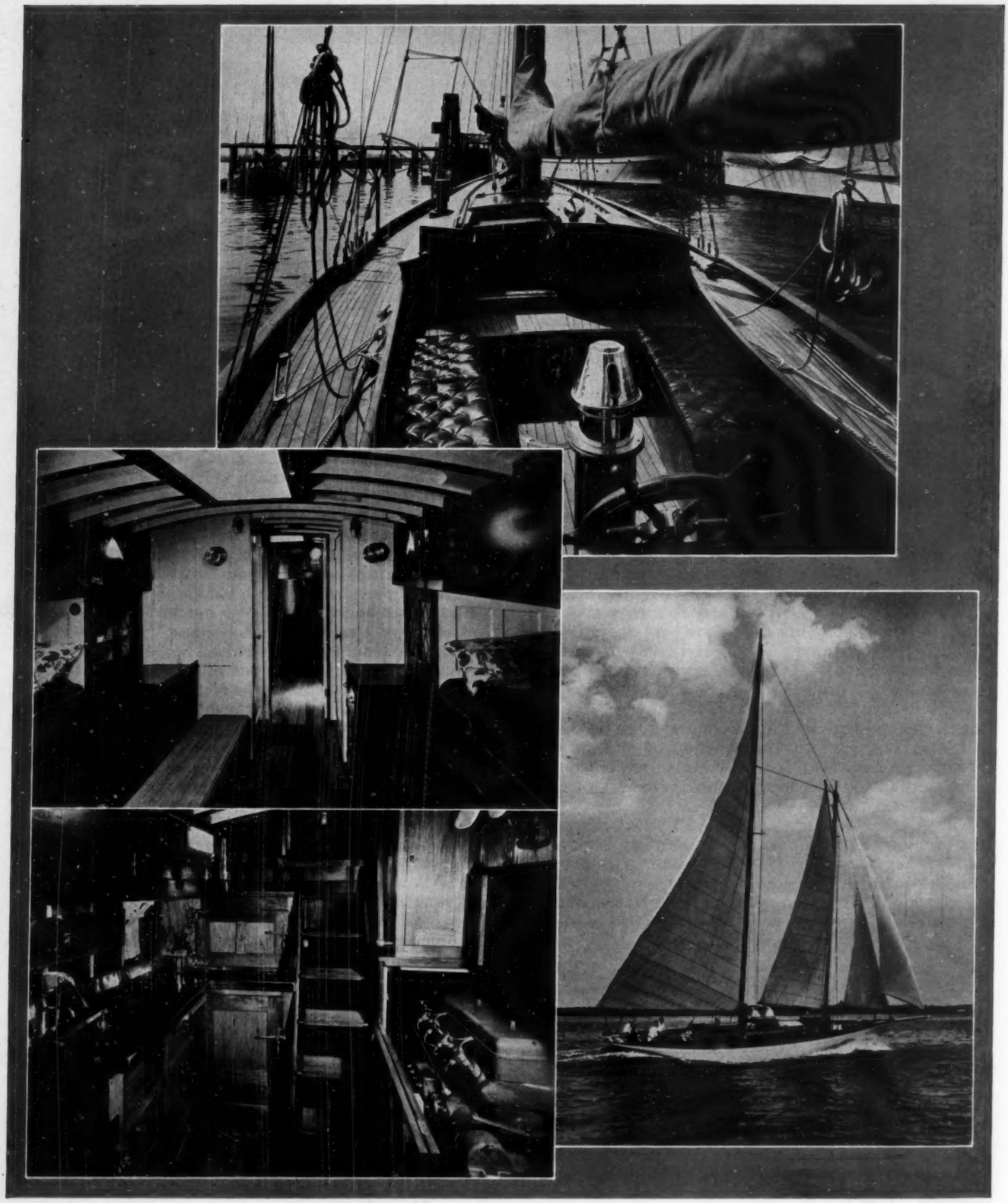
Nor was she boxy, or bulky looking. She had a high clipper bow with a small scroll or fiddlehead, and beautiful trail boards carved with a vine pattern. Her greatest beam was at the breakbeam or just forward of the mainmast, and the breadth carried way aft, a 16-foot boat being carried across the stern on davits without any of it projecting beyond the fashion pieces.

Now this schooner was by no means the best of the fleet. I merely mention her because I was well acquainted with her and once took a short trip in her. The cargo on that occasion was one of the old steam merry-go-rounds that was touring the country. The horses and other gear were stowed in the hold, while the steam engine was left on deck. A steam tug towed us out of port. Outside we got a breeze and overhauled the tug, and as the tug was going to the same port, she was made fast alongside, the wind being offshore, and we towed the tug, with her engine shut down, for some twenty miles in great style. On entering port we were again taken in tow. Here we passed close to a stranded schooner. She was called the *Loyal*, a toothpick, five years old. She had struck bottom when coming in deep-laden with coal and sank in the middle of the channel, and had been floated by means of oil barrels, and beached. She was the object of the tug's visit, as she had been repaired, and in an attempt to launch her she had stuck on the ways.

Did these old schooners leak? Well, the pump was the bugbear of these schoonermen, and the oak-built American schooners were worse, if anything, than the soft wood built Canadians. The old American schooners were usually very loose, as their timbers were in comparatively short lengths and their trunnels did not go through the ceiling, while the Nova Scotians were trunneled clear through and wedged. When they were outside, it was pump, pump, pump, and only three and four of a crew all told. This was before the days of gasoline engines. Many were the devices to keep the old crates afloat. I have seen the old skippers take a bucketful of dried-out horse manure, or fine sawdust, tie it to a pole, and push it under the bottom, where it would be sucked into some of the leaks. Of course, this would be washed out as soon as she went to sea again, but anything to stop the pumping while in port.

Well, the coal and lumber trade is gone and so are

(Continued on page 78)



Photos by M. Rosenfeld

"Sonny," 49-Foot Auxiliary Schooner

Designed by Ford, Payne and Sweisguth for Albert D. Phelps, of New York, "Sonny" was launched this spring and took part in the Bermuda Race in June, finishing fourth in her class. She is a smart little craft, pleasing to the eye and easy to handle. The roomy cockpit and wide decks give plenty of space "topsides." The other pictures show the main cabin, looking forward into a stateroom, and the galley and engine room. A 40 h.p. Hill-Diesel furnishes power

"Melodie" Wins Port Huron-Mackinac Race

By

R. A. BELL

Skipper of "Melodie"

Photos by E. A. Murphy

The start of the Port Huron-Mackinac Race with the schooner "Melodie," winner of the race, leading "Nawanna" and "Suez"

A FLEET of eleven boats came to the starting line off Port Huron for the annual race to Mackinac sponsored by the Bayview Yacht Club of Detroit. This and the Chicago-Mackinac Race were started on the same day, July 16th, to bring the two fleets together for a rendezvous at Mackinac Island. As the time for the start of the race approached, the northeast breeze, which had promised a sparkling start, gradually weakened until it became a mere breath, and the skippers, remembering their experience of last year, when the starting gun was the signal to drop anchor, milled lazily around as near to the line as they could and still keep clear of each other and the stake boat. This almost resulted in a mix-up which might have disqualified several when they found their speed quickened in the last two minutes and tried frantically to find room and means to avoid being forced over the line too soon. But by the nicest judgment of time and turning radius, the snarl slowly untangled and left the entire fleet crossing in a start remarkably close.

The wind soon went to the southeast and then to south, so that spinnakers, balloon jibs, and kites of all descriptions were broken out on every boat of the fleet. *Trident's* towering pyramid of light canvas put her in the lead and by nightfall she was so far ahead of the fleet that we, on *Melodie*, could think of nothing to do but pray that we would never see her again. We had held well to east of north, preceded, accompanied, and followed, as fortune shifted, by *Grace* and *Nawanna*, and at dark by *Spindrift*, which had made an inauspicious start but recovered with a marvelous run through the fleet and joined our little party. We took satisfaction in the fact that the wind was still too light for *Suez* to do her stuff and that we were then leading one of the scratch boats.

The wind stiffened during the night from northwest, swinging to northwest by north. Sunday morning found us sloshing hard to windward into an increasing roll. Three spots of white behind we took for *Squall*, *Spindrift*, and *Josephine*. *Suez* had taken to the going like a duck to water and was dim ahead, with *Trident* out of sight. All day we sloshed along with rail down, water on deck and too much below for comfort. Our crew was hardly tuned to this sort of stuff. Eating was sketchy and several tried things which did not pass inspection and were promptly rejected.

About the middle of the afternoon our fix by dead reckoning was 55 miles off the American shore, and we came about and sloshed on the other tack. Our attitude had become by now one of dogged endurance, when away went our main throat halliard. Had there been anything else to do we might have done it, but under the circumstances we assumed a "this-goes-beyond-a-joke" expression, got in the gaff topsail and mainsail, fell off from northwest to little better than west under jib and foresail, and wearily went about rigging a new halliard. The two white spots behind us materialized into *Spindrift* and *Josephine*, who seemed to spring from nowhere to almost alongside before we got the mainsail working again.

All day we sloshed along; all night we sloshed. That night we did not drive quite so hard. If a throat halliard we thought safe could go, why not a peak? And if the

(*Continued on page 88*)

"Melodie," sailed by R. A. Bell, not only won on corrected time but was first boat to finish

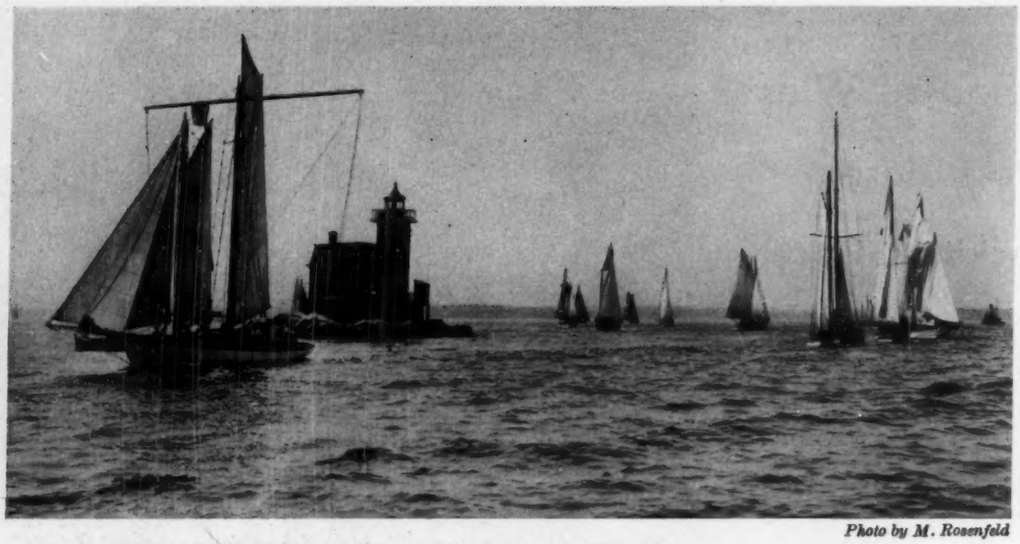


Photo by M. Rosenfeld

The Bayside-Block Island racing fleet rounding Stepping Stones light at the start of the race, with "Kumalong," second to place, sporting her Moonraker yard

The Bayside-Block Island Race

"Tidal Wave," Smallest in the Fleet, Takes Johns and "Yachting" Trophies to Larchmont

WHEN Sam Wetherill built *Tidal Wave*, remarks were made that his watermelon-sectioned ketch wouldn't be able to get out of her own way. If she can't get out of her own way, it's because she is too fast and fast enough to get out of the way of twenty-seven other boats to win the Bayside-Block Island Race and finish a whole hour ahead of the veteran schooner *Kumalong*, which took second place. *Tidal Wave* takes to the Larchmont Yacht Club not only the Johns Perpetual Trophy, but the YACHTING Trophy for the first boat to place under 40 feet over all and won for her skipper the Commodore's Trophy. She is the smallest boat to win in the history of this annual gasoline-guessing and current-catching handicap, of which no two are alike.

The only prizes *Tidal Wave* left were the trophy for the first boat to finish, which went to the scratch boat, Horace Merwin's schooner *Dauntless*, the Rockwell Trophy for the boat coming the greatest distance to enter the race, taken by the *Malolo* of New Bedford, and the consolation prize for the last boat to finish, *Patricia*.

The fleet that hit the line off Bayside with wide open throttles on Friday noon was marked by the presence of a majority of larger boats. This was probably due to the readjustment of the allowance formula to give the larger yachts more of a chance than results of past races gave them. So, although the fleet was smaller in numbers than in previous years, it was, in size of entries, bigger and better. *Rissa*, *Playmate*, *Wild Goose* and *Kumalong*, the latter with her Moonraker and Heavenly Peeper, all past winners of the event, were at the line with lockers full of trick sails and engines weaned to the minimum. Three of these veterans, *Kumalong*, *Playmate* and *Wild Goose*, last year's winner and winner of the Stamford-Vineyard race, placed in the order named, behind *Tidal Wave*. Three of this year's Bermuda entries, the schooner *Sonny*, the ketch *Vamare*, and the well-known *Curlew*, were starters. *Manatauqua*, a slippery "Q" boat, gave the fleet something to worry about, but she was forced, unfortunately (or happily, depending on what boat one was sailing on), to withdraw.

"Tidal Wave," winner of the race, at the start, with the Mule pulling aloft and motor pushing below

Although the hard working committee of the Bayside Yacht Club has shifted the starting time between noon and 6:00 P.M. during the past several years in an effort to catch the breeze that invariably drops before the start or makes up afterwards, the light northerly which had been blowing during the morning petered out at starting time at noon, as usual, so there was the customary gasoline start. The fleet hit the line well bunched,

(*Continued on page 86*)

A Winter Passage in "Ahto"

Part II—Across the Bay of Biscay and Down the West African Coast to the Cape Verde Islands

By AHTO WALTER

ON THE 23rd of January, 1932, *Ahto*, with my brother Jarrilo and myself for her crew, sailed away from England's shores, bound from Plymouth to Vigo, Spain, across the Bay of Biscay, on our way to Miami and New York. For the first few hours *Ahto* made good time, but the wind soon dropped and we lay becalmed and rolling all night. However, an easterly breeze followed, and increased as we passed abeam of Ushant to enter the Bay.

By nightfall it was blowing up to force five and *Ahto* plunged into the phosphorescent seas, throwing off a fiery bow wave and leaving a swirling silver wake. The sails, reflecting the flaming phosphorescence, glowed white against the pitch black horizon. The wind held strong, and with ballooner set *Ahto* drove across the Bay of Biscay in fast time, sailing 386 miles in two days.

The coast of Spain, at Cape Finisterre, was made on January 28th, five days out of Plymouth. Under the lee of the high Spanish coast the wind fell light, and *Ahto* commenced to drift toward shore and was carried in sight of the breakers crashing against the outlying rocks. We had no oars, so we took out the bunk boards and paddled as hard as we could for more than three hours before *Ahto* was out of danger.

"Ahto," 29 feet over all, proved a good sea boat and her modern cutter rig was easily handled by her crew of two

Finally, a light northeasterly wind relieved us from the tiring work of paddling and sails were trimmed to make a course for Vigo. We entered the old Spanish port at daybreak on January 30th, just as the picturesque fishing feluccas were putting out to sea for the morning catch.

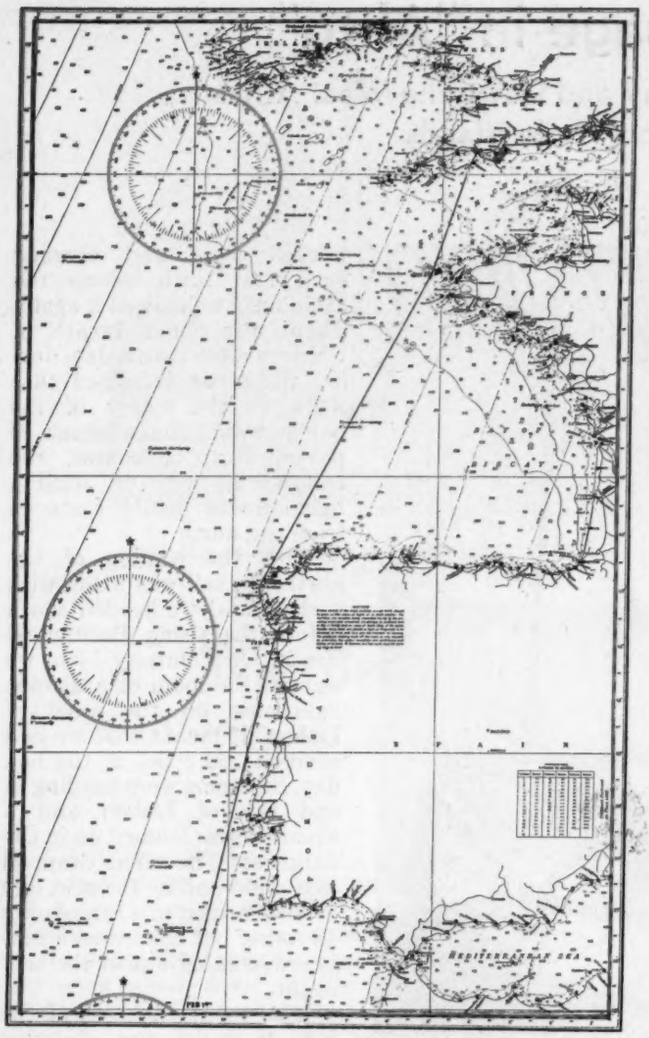
In Vigo, while we waited seven days for much-needed funds, we beached *Ahto* and scraped and painted the bottom and topsides. With the funds finally in hand, we provisioned for the passage to Miami and departed Vigo on February 12th, on a course toward the Canary Islands and the Northeast Trades.

We found no wind off the Spanish coast, but a high ground swell was rolling in which made life on board a misery. *Ahto* rolled from rail to rail and the sails would have torn themselves off the spars if we hadn't furled them. We lashed the tiller and got below, where the motion was not so great, but we could not sleep for fear of being thrown out of our bunks. Gear below decks worked loose and charged back and forth across the cabin until we stowed it again. There was not a breath of wind for more than a day, during which we imagined that *Ahto*, at the mercy of the swells, would shake herself to pieces. But, of course, she endured it, with us, until a light breeze finally came in from the north.

With the coming of the northerly, sail was made with a cheer and we headed south before the rising Portuguese Trade. On February 14th, we sighted the loom of a distant lighthouse off the coast of Lisbon. It meant that we had covered 160 miles in the last day. Steamers were heading in and out of Lisbon and a square-rigger loomed up in the darkness. The wind dropped that night and by the next day we had turned in a run of only 43 miles, but there was a new breeze coming out of the east again.

Ahto made the best of the light easterly, but she was moving at about only three knots. For two days we jogged along at this pace and then the wind dropped again. But it was soon followed by the northerly which came in strong, rolling a steep swell before it. There was a small steamer in sight ahead and we carried full sail in an attempt to overtake her. Eight hours later she was out of sight astern. The wind increased and we took in the ballooner. This made the steering very difficult and slowed us down so much that the seas mounted over the quarter and filled the cockpit. We considered heaving to, but decided to set the ballooner again to make her handle better and keep moving with the seas. It was hard work to set the sail, but finally it was pulling, and although we were taking chances with our mast, *Ahto* behaved much better and scudded along like a frightened flying fish. During this twenty-four hours we made our record run of about 200 miles, which was very good for a boat less than thirty feet long.

Before the Portuguese Trade petered out we were well south, off the African coast, and approaching the Canary Islands. Here the wind dropped again, leaving us becalmed. By this time we had consumed all our fresh bread and decided to make an attempt at baking, but there was no oven. However, we went to work with a can opener on a large biscuit tin and soon produced the necessary oven, which was heated over the primus stove.



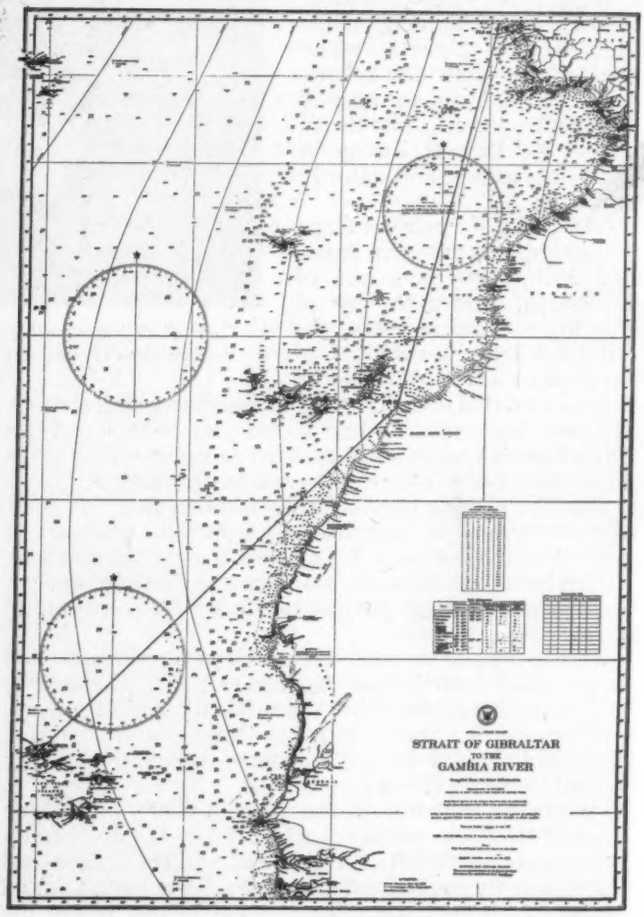
"Ahto's" track from Plymouth across the Bay of Biscay to Vigo and southward

The dough was placed in the oven and watched — probably too well — for it never cooked and we decided that ship biscuit was good enough, anyway. At the end of this day we sighted Cape Juby, on the African coast, and slowly drew within a quarter of a mile of the shore, but there was little to see save the desolate sand dunes, occasionally broken by white Moorish houses or a clump of straggling trees. The sea was far more animated by the presence of a great school of friendly porpoises that swam alongside the boat, scratching themselves against the hull and rudder.

By February 21st we had reached the northern edge of the Northeast Trades and encountered the first tropical squall that came with the northeast wind. In this weather we made a day's run of 132 miles, which brought us abeam of Cape Bojador, West Africa. Off the Cape a French steamer came alongside just as we were cooking supper. We left the supper to cook and scrambled on deck and remained there, fascinated by pretty girls waving to us from the steamer. When we had recovered and remembered our supper we went below again to find it all over the floor. The steamer was soon lost in the night and *Ahto* sailed on in the pleasant northeasterly.

The next day was blue, serene, and uneventful, but the one following, February 24th, was an occasion of great importance to us. Jarrilo, my brother, was seated at the tiller, which needed little attention as *Ahto* was steering herself, allowing him leisure for reminiscence. I broke into his reverie with a loud shout and a bottle of whiskey in my hand. My brother looked at me in bewilderment, thinking I had gone sea mad. To further this conviction, I embraced him and then started to sing the Estonian national anthem. It was the latter which finally made him realize that February 24th was Estonia's independence day and it was time to celebrate; so he joined me in finishing the anthem and then the bottle. We lowered all sail and hoisted every flag on board and then drank to the health of our new republic. In honor of the occasion a feast was prepared from the best that our limited supplies afforded, and eaten. At home we knew that the evening would be spent in dancing, so we decided to have a ball of our own on board. After dancing about the cabin floor with imagined partners, we went on deck, lowered the flags and closed the celebration with one grand "hurrah for Estonia!"

The wind was fair but variable next morning, and we thought it foretold dirty weather ahead, but it turned out to be nothing more than the vagaries of tropical weather, and by evening the light trades settled in again. With the trades growing stronger as we worked farther south, *Ahto* made good daily runs until the first of March, when a landfall was made on the Cape Verde Islands. Our original plan was to sail directly to Miami without a stop at the islands, but curiosity got the better of us and we decided to go ashore. The course was



"Ahto's" track from Lisbon south to Cape Juby and the Cape Verde Islands

laid between the black crags of the islands of San Antonio and St. Vincent, the latter being our destination as we could there take on a supply of fresh vegetables.

On the second of March we reached the entrance to the harbor of St. Vincent, where a tug offered to tow us in, but, fearing a pilotage charge, we steered clear. However, it appeared that the Norwegian Consul was aboard the tug and had come out to welcome us. When we anchored, he came aboard with the doctor and port officials who passed us without the usual fees or port charges. Then he commandeered a guard for the boat and took us ashore to his home where we were given a bathtub to wash off the salt. The Norwegian Consul, who, we learned, was born in Tallinn, our home, proved a most gracious host during our short stay in St. Vincent and guided us in every way, besides motoring us around the island.

The skipper, Ahto Walter, still in his 'teens, has made three Transatlantic crossings in command of two boats under 30 feet

The Cape Verde Islands, a formation of volcanic rock on which little will grow or live, are inhabited largely by Negroes who have only the crudest of man's machinery with which to work. We observed a heavy load of bags on a sled about two feet wide being drawn by a team of twelve Negroes, while the foreman sat on top of the load driving them on with a loud voice. The women did the loading and unloading and some worked with babies strapped to their backs, Eskimo fashion.

On the north side of the island we descended into an extinct volcano in which there was an unexplored tunnel. We found the entrance barred because many animals had been lost inside. Then we returned to the harbor over volcanic country which resembled an irregular heap of red bricks.

We remained on shore but nine hours, and then set sail for Miami.

(To be concluded)

Naval Reserve Courses in Colleges Offer Training for Future Yacht Navigators

THE mastery of deep sea navigation involves so much time and study that the average yachtsman finds it virtually impossible to become a good offshore navigator, and often regrets that in his school or college days no courses were given in navigation. Today the college freshman who is interested in yachting and aspires to navigate yachts in future ocean races or deep-sea cruises may take advantage of a four-year course in Naval Science and Tactics which will not only give him a thorough grounding in celestial navigation and allied courses, but leads to the commission of ensign in the U. S. Naval Reserve. Naval Reserve Officers' Training Corps are organized at Harvard, Yale, Northwestern, Georgia Tech, Washington University, and California.

The purpose of the course is to provide systematic instruction which will qualify the graduates for duties as Deck Officers in the United States Naval Reserve. The course is also a valuable training for the student who chooses an industrial or professional career.

The courses taught include seamanship, gunnery, engineering, naval history, and navigation. The navigation course is quite complete and the graduate is capable of navigating a ship anywhere at sea. During the cruises on naval vessels, the student is given an opportunity to prove his ability.

A complete mathematical education is not at all essential before taking up navigation. A college freshman who is accurate in arithmetic, neat, and who has a little imagination, should do excellently.

The course counts toward a degree just as do other courses in the college. The commission, received at the end of the four-year course, does not put the holder under obligation except in time of national emergency. Any training cruises on warships in peace time are voluntary.

Eligibility to membership in the Naval Reserve Officers' Training Corps is limited to students who are citizens of the United States, not less than fourteen years of age, and whose condition indicates that they are physically and mentally qualified to perform military duty or will be so qualified upon arrival at military age.

Before admission to Naval Science, students must have passed a prescribed physical examination and must pledge themselves to be immunized to typhoid and paratyphoid fevers, and smallpox, provided they do not furnish satisfactory proof of immunity.

Each enrolled member of the unit is furnished, without cost, an outfit of uniforms and necessary equipment. Textbooks and reference books covering the course are furnished free to each student.

During the summer vacation a cruise is arranged by the Navy Department for members of the Units and all are urged to attend each cruise. The cruise is taken on naval vessels of the battleship, cruiser, or destroyer type, during which the students are indoctrinated in the duties of a deck watch officer, navigator, and in the actual pointing and firing of guns at target practice.

All students participating in the summer cruise are furnished subsistence, bedding equipment, and traveling expenses both to and from the point of embarkation.

Week-end cruises during the academic year are made as vessels are available and the students indicate a desire to attend.

All physically qualified graduates of the course are commissioned as officers in the United States Naval Reserve.

Freshmen, who are entering the listed colleges this fall and who are interested in this opportunity to become proficient in navigation and at the same time wish to prepare themselves for the service of their country, should make proper application at their respective universities.

"Conewago's" Name On Canada's Cup

+ + +

By C. H. J. SNIDER

"Conewago," successful defender of the Canada's Cup, sporting a modest spinnaker

WE KNEW *Conewago* was a ghoster. We had chased her in *Gardenia* for a hundred miles, from Rochester to Hamilton, two years ago, in light airs, without catching her. *Gardenia* is of the vintage of 1909, but a 40-foot waterline cutter, and she usually gathers in Eight-Metres like a cop sampling a fruit-stand. But not *Conewago!*

So we Canadians came to Rochester in August, 1932, prepared to see *Conewago* "go some" for the Canada's Cup. But we didn't expect her to do quite so well as she did in moderate to fresh breezes. And, to be very candid, we didn't think her crew to be quite as perfect as they proved. We knew they were good sailors. But we didn't expect chain lightning all the time.

And another thing —

We were really caught out on the parachute spinnaker proposition. We shouldn't have been. Heaven knows YACHTING and other authorities had spread the gospel of the parachute aforetime. But we were like Noah's clientele when he was building the ark. They stopped, looked, and listened, but in the end they were all wet. So were we.

They smothered us with the parachute the very first race, on August 1st. It was four and a half miles to windward and back, twice around, in an east-north-east breeze of twelve knots maximum, and a lively sea. Our champion *Invader II* chewed out to weather as we hoped she would, standing up a little stiffer, pointing a little higher, and footing just as fast as *Conewago*. "Connie," as everybody called her, seemed to slide off a little with the Genoa jib she carried. *Invader* was in overalls, with her sleeves rolled up; in other words — working jib.

She was almost two minutes to the good at the first turn — well, a minute and 35 seconds, if you must have it. Fine! Around she swung, out broke our best spinnaker, after fouling all the obstructions in sight—there was quite a sea, and *Invader* belongs to that sect known as the Holy Rollers — and off she went for home.

And then! "Goog" Brennan, feather-footed light-sail man in *Conewago* pulled a thread and the whole sky behind *Invader* was blotted out — so it seemed to us — by a white circus tent shaped like the whole dome of heaven! There wasn't one solitary patch of blue left in the firmament for our eyes. This silver enormity picked *Conewago* up after the manner of a gull gathering a herring, and flew along with her. And the worst of it was that it never let go until *Conewago* was thundering in *Invader's* wake, right at the turn completing the first round.

"Man!" gasped Major Windeyer, father of young Walter, our Canada's Cup skipper, "O, say, can you see — what I see?"

He was aboard the "P" boat *Patricia*, guest of our Fleet Captain, T. K. Wade, R. C. Y. C., and his question was to his host.

"I do," answered True Thomas, "and without glasses, too."

Windeyer looked at Wade. Wade looked at Windeyer. "Let's," their eyes agreed.

Ernest Ratsey was another guest of the Fleet Captain's. Ere the round ended he had departed *via* a power launch, got his father's City Island loft on long distance, and put through an order for a parachute for *Invader*, delivery by seven next morning.

We were certainly slow in not having had a parachute on *Invader* months earlier; but we were not so deliberate once we did wake up. *Invader* is a syndicate boat, with a score of owners scattered over the Dominion of Canada; but Messrs. Wade and Windeyer didn't take the time to send 'em a questionnaire as to whether they would buy baby this toy balloon or not. And that parachute was aboard *Invader* next morning about the time the milkman left the bottle!

It was poetic justice, to be caught this way, for in the previous contest we had opened *our* little surprise package, a boomless spinnaker with perforations to spill the spent wind. But what a tit for what a tat!

I can't leave that first race in the air this way, with *Conewago* pulled up from the sub-cellar and tramping on *Invader's* heels. We breathed a little more freely when *Invader* hauled on the wind for the second trip out without being actually caught. *Conewago* had clipped off a minute and a second in four and a half miles, and sliced a 400-yard lead down to forty; but if we could make a couple of minutes beating out before, we ought to do it again.

But just then the cow kicked over the milk pail and all our fancy chickens were drowned in the flood, unhatched. "Striving to better, oft we mar what's well," as the able seaman who wrote *The Tempest* says. Walter Windeyer thought he would try his Genoa for this next trip to windward, and up she went at the turn, taking with her, as nobody noticed, a bight of the working jib halliards, and jamming them in the block. Ten feet of the working jib was banging like a kettle drum against the luff of the Jenny.

Dyke Mercer, who was shifting gaff topsail sheets in lake schooners before we were born, shot aloft up *Invader's* beanpole, but could not cure the mess. The

working jib would neither go up nor come down. They were afraid to let go the Genoa, for fear they would have no headsail at all. It was discovered later, and too late, that this very thing would have solved the snarl.

They stopped up the flogging worker, with sail twine, but even so the roll of it flailed the life out of the luff of the Genoese jib, and with every leap and dive *Conewago* drew nearer. "Rooney" Castle, skipper of this ship, is as quick to spot an opportunity as an employment agent is to spot a job — for himself — in these hard times, and he promptly began a battle of short tacks. Either he got a fairing in one of them, or *Invader* is slower in stays and loses each time she spins, for after five or six *Invader* had to bear off under *Conewago's* stern, as they converged, and after that it was all over. *Conewago* was 22 seconds to the good at the weather mark, and the parachute did the rest.

Yet even so, this shows what interference will accomplish. *Invader*, with distinctly inferior light canvas, but placed squarely in the wake of her rival, held down the latter's gain in this second run to thirteen additional seconds. In the run before *Conewago* had gained a minute plus.

Thus the first race went to the defenders. If you don't read the newspapers or listen to the radio you're out of luck, for YACHTING won't leave out "ads" and pictures to give you a minute-to-minute account of the play.

But if you really lack enlightenment, this was the eighth contest in the series for the Canada's Cup. The challengers were the Royal Canadian Yacht Club, which first won the trophy on Lake Erie in 1896, and again at Chicago in 1901. The defenders were the Rochester Yacht Club, which won the cup at Toronto in 1899 for the Chicago Yacht Club, and in 1903 for themselves. They have been defending it successfully ever since. These last races, like the preceding three contests, were sailed off the port of Rochester, on the south shore of Lake Ontario, in weather conditions fairly free from flukes, and water anywhere from rough to smooth. We Canadians would have liked more wind, but there was plenty to finish always within the time limit. This was five and one-half hours for the courses of 18 or 21 miles.

The day after this debacle, in weather and water conditions exactly similar, *Invader* won handily, with a margin of a minute and a quarter. It was a triangular course this time, and *Invader's* gains were in the windward legs. The other legs were reaches, and *Conewago* reached a little faster. As a longer boat she should. *Invader's* rush-order parasol was in her fore hatch, but she did not get an opportunity to open it in the fashion parade, the wind never being over the taffrail.

"Invader II" beating out from Rochester Harbor in the first race

Walter Windeyer at the stick of "Invader II"

The following day, August 3rd, began in a downpour and ended in a blaze of sunshine, but the wind was always light to moderate, and apparently better suited to *Conewago*. The course was triangular. Once *Invader* was fifteen minutes behind at a turn, and that meant a mile and a half at the rate of going; but she made a grand-stand finish, gaining over a minute in the last three miles, and cutting down *Conewago's* winning margin to 2 minutes, 41 seconds, or about a quarter of a mile. It was her new parachute which brought her up, and the rapid-delivery sail assuredly justified its acquisition.

We pause to remark that this spinnaker contains 1700 square feet of silk — if you can conceive of the feet as being "square" in an area which looks like nothing more than one half of a pumpkin shell, greatly magnified! Whether you can or not, they are there. *Quest's* spinnaker, which startled the natives two years before, and was again used by *Invader* in her first race at Rochester, had 1100 feet in it, not counting the manholes. Or perhaps they should be counted. At any rate, even this was a pretty generous kite for a yacht whose "total" sail area is 860 square feet. That is, the total measured. The actual area of all *Invader's* sails would pave a path from Toronto to Rochester, for she has ten pieces of head canvas and two mainsails!

What time ourselves were learning to sail in coal schooners, many long years ago, the mate's worst threat used to be that he would rig the triangles. That meant we would be sent aloft on three-sided scaffolding surrounding the lower masts, caked in slush and coal-dust, and have to sit there and scrape down to the clean wood, and then slush her down again, for the greater ease and comfort of the masthoops. A miserable job of a wintry day.

These Canada's Cup judges — our esteemed Robert Bavier, of the New York Yacht Club, chairman, and W. Peck Farley, Rochester Yacht Club, and Dr. Frank G. Mills, Royal Canadian — would have been bully mates. They rigged the triangles on the Canada's Cup hunters three times out of four. The practice is windward-and-leeward and triangular races alternately, but these jurists of repute did not trust early August weather overmuch to give true windward legs, and were gluttons for triangular courses. These gave a reacher a chance to reach, and at the same time minimized the possibility of a wind shift rendering a windward-and-leeward course nothing but a reach all the way.

So the fourth race was another triangle. It looked like an *Invader* day at the beginning, with a twelve-knot breeze from the west, but this softened to eight knots or less from north-northwest, and *Conewago* came into her own.

There were thrills. Skipper Castle made the rare slip of overstanding in the first windward leg, and thereby handed Skipper Windeyer fifty yards of water. Windeyer, who had been under his lee, turned the weather mark first.

And then *Conewago*, licking her lips at the following reach, walked up to weather of *Invader*, and passed her after a luffing match had carried them a mile to windward of the next mark. This turned the reach into a true run, and *Invader* quickly spread her new silk parasol and regained all she had lost. Treading warily, she drew abeam of *Conewago* at a safe distance and sailed by. Then Castle cleverly jibed, swinging his great elephant tent from port to starboard with quickness of hand that deceived the eye, crossed *Invader's* wake, got to leeward of her, and jibed back again.

For a second time he drew across *Invader's* wake, this time close enough to take her wind and check her way. And so they raced side by side for the mark, *Invader's* white nose maintaining an overlap and keeping her in the inside of the turn. Then bingo! Also Jibe-O! It was like Urry's epic *à la Pepys* in last month's YACHTING, of the finish between *Windstealer* and *Mugtaker*, when both got the gun. Only in this case there wasn't any gun. *Invader's* crew to a man believed they rounded the mark in the lead; the committee said *Conewago* by three seconds!

Perhaps *Invader* luffed a little too much for the next course, a close reach home; perhaps the large Genoese jib she set was trimmed too flat. Perhaps —. Well, *Conewago* sailed through her lee and around the home mark and out on to the second windward leg as though greased.

That magnificent parachute again almost pulled *Invader* into place, on the second trip around. It brought her within 22 seconds of the flying *Conewago*, and within 22 seconds she stayed until the finish. But — that was the finish. The cup, with its fate settled by three victories, stays in Rochester.

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"We'll be back," said Vice-Commodore Norman Gooderham, "and soon."

He was speaking for his club, the Royal Canadian, at the banquet celebrating the Rochester Yacht Club's successful defense. The five words meant much. They not only expressed the never-know-when-they're-licked attitude of the Briton, first mentioned by the late N. Bonaparte, but they typified the cheerful optimism and right good will on both sides, which has transformed the Canada's Cup from a root of bitterness to a bond of benevolence. (Cheers and prolonged applause.)

This year's contest at Rochester gave yachtsmen more to think about than any contest since the *Seneca-Adele* duel of 1907. That was really the Armageddon of the old and new. *Adele*, considered a perfect product of the old factors of length and sail area, with some recognition of girth and displacement, was flattened like a pancake before *Seneca*, protagonist of the coming Universal Rule. *Invader II* and *Conewago*, contestants for the same cup in 1932, represented two schools of thought working out the possibilities of still another rule, the International.

It has been complained of the International that it produces yachts monotonously alike. The charge is unjust. Certain efficiencies of rig and hull form have so proved their case that they are sure to assert themselves in all yachts intended for similar purposes.

"As like as two peas," is the expression often heard. Yet, apart from their identical green and white paint, *Conewago* and *Invader* are at least as different as French sweets and marrowfats, if you know your pods.

Conewago, narrower, heavier, longer, sharper ended, carrying her displacement deep, paying little in penalties, represents a very young American designer's ideal of a light-weather lake boat. Olin Stephens of Sparkman & Stephens was only twenty-three when he gave her to the freshwater world two years ago — and he assuredly made a wonderfully accurate guess at what was wanted, if there was any guessing about it. *Conewago* is the queen of the seven Eight-Metres yet designed for Ontario. With a slightly higher mast, she achieves efficiency with slightly less sail area than any of the others. Probably *Conewago* at her maximum speed would be outsailed by *Invader;* but she reaches her maximum speed before *Invader* does.

Invader again embodies the experience of the septuagenarian Scottish wizard of Fairlie, who has been designing yachts for Lake Ontario since the 1880's and who has designed and built successful Eight-Metres ever since the rule came in. *Invader* has the hollower garboards, rounder ends, more sail, less weight. Figures may give you a headache, but hold your throbbing brow to look at these, because much which has been published hitherto about the dimensions of these contenders has been only approximation, and these are accurate:

	Conewago	*Invader*
Length over all	48.71 ft.	47.9 ft.
Load waterline length	31.30	30.4
Beam	7 ft. 11 in.	8 ft. 3 in.
Draft just under	6 ft. 6 in.	6 ft. 6 in.
Displacement	19,769 lbs.	17,990 lbs.
Sail area	836.05 sq. ft.	860.35 sq. ft.

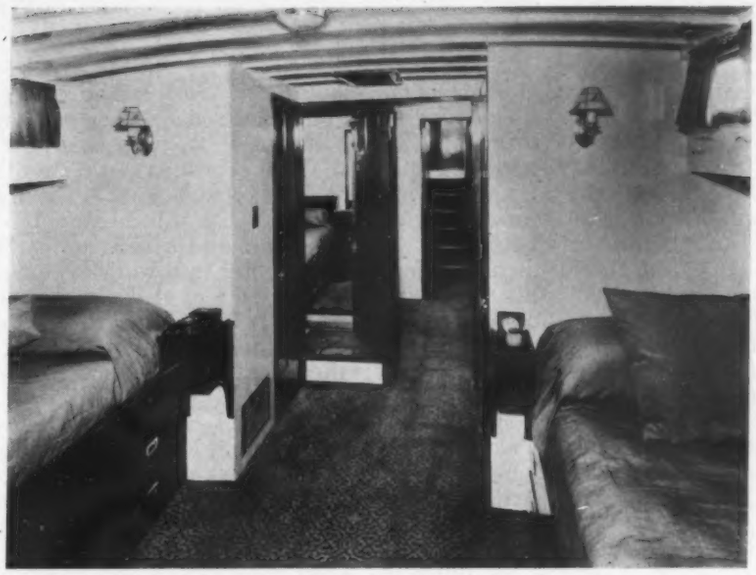
It is enough to make the old-timer rub his eyes to find the boat with less sail area and greater displacement the "light weather" boat, but there you are. Performance proves.

Comparison of boats, of course, invites comparison of crews. As a profound admirer of *Invader's* crew I think I can express their admiration of the way *Conewago's* sailors handled their muslin, along with my own. It was perfection. Elmer McFarlin, Walter Brown, Walter Farley, Mortimer Anstice and Eugene Brennan were the boys, and they all deserve medals. Our crew were Charles W. Bourke, S. Casey Wood, Hubert Corbould, Arthur Kelly, and Dyke Mercer (pro) on headsails. They were good, and will be better. Their handicap was that they had sailed together for only three weeks instead of three seasons.

Work of the skippers is hard to compare. Walter Windeyer got four starts in the four races — and Wilmot Castle got three finishes of the four! Castle specialized on crossing with maximum headway, and he achieved that. It was wonderful to see him walk through Windeyer's lee at the start of the third race, and then wriggle completely clear in a luffing match, while *Invader's* crew wrestled with a refractory jib problem. It was fine to see him try twenty-two tacks in three miles to clear his wind, even if he did fail. Two of Windeyer's starts were certainly brilliant masterpieces of weather-berthing on the crack of the gun; two others, while ahead, were not so clearly defined. He was criticized, perhaps unjustly, for a lee-end start in the last race; but he was over first and wanted to keep clear.

Both wonderfully good men, is the general verdict.

And we'll be back for the cup!



"Volkertse"

+ + +

A New 65-Footer Designed and Built by Purdy for Paul L. Veeder, of Hewlett, N. Y. She is Powered with Two Speedway Engines

+ + +

Photos by M. Rosenfeld

The trim lines of this smart cruiser are designed primarily for speed, yet at the same time she is well proportioned to meet hard weather and make extended cruises in open water. The layout below decks is notably spacious, with wide floors, broad passageways and large berths. The deckhouse, fitted with a long drop leaf table, permits of dining with a harbor view on three sides. Controls are brought to an efficient looking flying bridge abaft the deckhouse, an arrangement which allows the helmsman an unobstructed view of his entire boat

"Big Horses" and "Little Horses"

By HENRY CLAY FOSTER

THE sport of motor boating involves many technical questions of a pertinent sort, some of which every one of us will have to solve some day in one way or another. And most of us are simply gropers in the dark at such times, unless, of course, we can call upon a technical training in our past. Otherwise, we are prone to take advice from those who seem to know what they are talking about — and sometimes they do. Just as often, I fear, they do not. Yet many a newcomer to the sport has been guided rightly in the simple problems of boat handling and usage by taking the advice of other boat owners and of the armchair experts, some of whom, at least, are *bona fide* "has-beens." And many a disastrous piece of advice has been given by some emphatic but hazy-minded talker totally unfamiliar with the mechanical principles involved.

There are, however, a few engineering fundamentals easily understood by the layman and newcomer, which, if borne in mind, may be of immense value in judging the expertness of one's adviser. It is true that we are all likely to talk recklessly of "power," "indicated horsepower," "brake horsepower," "thrust," "torque," "gear ratios," and the like, and to discourse sagely on how these act in specific instances. But how many of us know exactly what each of these terms implies? A good half — I suspect a good nine-tenths — of us have only very hazy notions of what such terms denote, and fewer still know exactly what engineering values are involved.

Out of such discussions of the uninformed grow legends about mechanical phases of motor boating which have no foundation in fact. For instance, who has not been told seriously by some water-front sage that you lose horsepower if your drive shaft is too long? Yes, we've all heard it often. Sometimes we've disputed it. Oftener, we've thought: "Maybe so. I don't know anything about mechanical engineering, anyway." And we let it go at that. But what is the truth on this point? Merely that you do not lose a single mouse-power from a long shaft as a result of its length — because one end turns as fast as the other. Obvious, when you think it through. However, it is true that a negligible loss of power is sustained from the friction of additional bearings necessary to support a longer shaft. But if the bearings are improperly aligned, a long shaft will spring a little, while a short shaft with improperly aligned bearings will have a tremendous pressure, and something is certain to let go shortly.

But to get back to the mechanical fundamentals which should be clear to every motor boat owner, let us discuss a few terms and agree on just what each designates. *Force* is one of them. Other units of the same denomination are *resistance, pull, load* and *thrust.* These are all measured, usually, in units of weight, as in pounds, kilograms, tons, etc. The pull on a tow rope, the pressure of a bit of lead on a scales platform, the thrust of a propeller along the shaft — all of these can be measured in pounds on a spring scale. Another element is *distance*— measured in inches, feet, miles, metres, kilometres — always in lineal units.

To drive the motor boat, work must be done. So *work,* in the sense in which it is used in engineering, is important for us to analyze. Work in this sense is made up of *force acting through distance.* Work is done either when a force is exerted over a distance, or when a resistance is overcome through distance. To push against a wall is not work, unless the wall is pushed down, and then distance enters into it. And because work is the product of force moving through distance, it is measured in units of both — as "foot-pounds," and similar terms. The element of time does not enter into work in this sense.To lift one pound through ten feet of distance is the same amount of work as to lift ten pounds through one foot of distance. The work is done in a different way, but the work involved is the same. It can be done in a second, a minute or a day.

Energy, on the other hand, is the *capacity to do work.* Take, for instance, the energy contained in one gallon of gasoline. We know there are various ways of getting the work out of this energy unit. In a small motor it will take longer than in a big one. But the quantity of energy is not changed, only the method of using it.

At this stage, let us examine the term *power.* Power is made up of three very distinct components — *force, distance* and *time.* (In this connection, we usually measure time by minutes and hours — revolutions per minute, and miles per hour.) *Power is the rate at which work is done.* It does not tell how much or how little work is done. It tells only *how fast* — or how slowly — the work is done at the instant you measure it. Continuation is not implied. But since power is the rate at which work is done, some unit of time must be taken to give us a rate. The power in a rifle shot is tremendous because the force acts and does its work in such a short space of time that the rate at which the work is done — the *power* — is high. Yet the *energy* contained in the powder consumed is relatively small in itself. The explosion of the powder in the rifle cartridge and of the fuel in the cylinder of an internal combustion engine both liberate energy to do work, but the engine is designed to do it continuously.

Horsepower is the usual and familiar unit of measurement for power. It dates back to the early days when steam was introduced to supplant horses in working the pumps which served the deep mines in England. It was then figured that a horse such as was used before steam came in, could deliver power equal to lifting 33,000 pounds one foot in one minute, and the horse could do this all through the working day. For a short time, of course, it is recognized that a horse can deliver the equivalent of 8 or 10 horsepower. But this unit came into general use and has become accepted as the unit of power in both fractional and multiple form. We say a small electric motor, for instance, delivers one eighth horsepower, or an internal combustion engine delivers 100 horsepower. The unit has, of course, countless equivalents. It is equal to 550 foot-pounds per second, for instance; or, 1,980,000 foot-pounds per hour. Thirty-three thousand pounds of work can be done in any way just so the product of the force and distance — which produce work — is 33,000. If 33 pounds is lifted 1000 feet in one minute, that would require one horsepower. Likewise, 1,000 pounds lifted 33 feet in one minute requires one horsepower. The work is merely done in a different way.

Yet this unit of power is the same in all forms. And how often do we hear talk of "big horses" and "little horses!" Usually the reference is to high-speed engines as

compared to heavy-duty motors. The belief has long existed among motor boat owners that the old-time slow-speed, heavy-duty engines produce "big horses" and that the small, high-speed, high-compression motors produce "little horses." Nothing could be farther from the truth. Assuming that each has been correctly rated, is in good condition and is turning up the specified revolutions, both produce "horses" of the same identical size. If — as frequently occurs despite the advent of the reduction gear — the high-speed engine is hooked up direct to a propeller of the diameter and pitch proper for the heavy-duty motor, it fails, and to some it may appear to lack sufficient horsepower. As a matter of fact, it has the power, but it has not been allowed to act at the speed necessary to produce its power.

We hear the term "horsepower" used in two different ways, and some of us tend to confuse them. We hear of "indicated horsepower," for instance. One might logically suppose this means horsepower actually indicated or produced. But it is not produced for our use. It is the theoretical horsepower, so to speak. It is obtained by a device, called an indicator, which indicates the mean effective pressure on the pistons, and inasmuch as we know the distance traveled by the pistons in one minute, we can figure the horsepower which an engine would have if it were one hundred per cent efficient — which no engine ever was, because every engine must use part of its power in its own operation. An efficient internal combustion engine should, however, deliver between 80 and 85 per cent of its indicated horsepower at the engine coupling for use. The 15 to 20 per cent is consumed in turning gears, friction of rings and pistons against cylinder walls, of connecting rod bearings on wrist and crank pins, driving the valve mechanism, the generator, water pump and fan. An interesting sidelight on this use of power by the engine itself is that a 16-cylinder Cadillac automobile engine turning at 3,400 r.p.m. uses 14 horsepower on the fan alone!

"Brake horsepower" is the power actually delivered by the engine at the tail of the shaft. It is the usable output of the engine. It is measured by means of a brake, hence the name. Many varieties of brakes are used for testing engines for their brake horsepower, but the principles involved are the same. The drawing here shown is of a simple type, but it serves to demonstrate the better the general method employed.

Imagine a big winding drum placed on the end of the crankshaft of the engine to be tested, and a long rope wound over it. On the end of the rope, down in a very deep pit, suppose a weight is hung, and as the engine runs it hoists the weight up by winding up the rope on the drum. To simplify matters, imagine the "rope" as, in reality, a light wire, weightless, in fact. Every turn of the motor will lift the weight an amount equal to the circumference of the winding drum. In one minute the weight would be lifted through a distance found by multiplying the number of turns (r.p.m.) by the circumference of the drum, and the work done by the motor will be equal to that distance multiplied by the weight. Since this work is done in one minute (the time being included in r.p.m.) the horsepower of the motor can be found by dividing that product by 33,000. This illustrates the principle, although it is not the practical means of making the horsepower test.

We use, instead, a device called a brake. Originally it was an ordinary brake. It is indicated in the sketch as two friction shoes clamped over a drum or wheel on the end of the crankshaft. The pressure can be adjusted to give friction to hold the motor at the desired revolutions. The shoes are attached to an arm extending to the side, the end of which rests on the angle on a platform scale, or is held by a rope leading to a spring scale — whichever is the more convenient. The tighter the friction blocks are clamped on the flywheel, the greater the pressure at the end of the arm. If the length of the arm is equal to the radius of the imaginary winding drum, we have something mechanically similar, and the horsepower as measured in this manner will be equal to the net load on the scale multiplied by the r.p.m. multiplied by $2\pi R$ — over 33,000. Or, $\frac{\text{net load} \times \text{RPM} \times 2\pi \times \text{arm}}{33{,}000}$

This is the simplest form of friction brake, and is of no use for a continuous power test on account of the charring of any brake lining from friction heat. For any satisfactory test this crude friction form is replaced by a "water brake," or, better still, by a generator in which the armature is turned by the motor and the pull between it and the fields replaces the friction. This electric brake is particularly good because it is easily regulated and the electrical energy produced is readily taken care of on long tests. The fields are mounted in a ball-bearing trunion so that they can swing, and the arm extends from them out to the scales.

In order to allow computations in the test room to be more readily and accurately figured, the arm of the brake is made either 63 inches long or 31½ inches. In case a 63-inch arm is used, the brake horsepower equals $\frac{\text{net load} \times \text{RPM}}{1000}$. If the arm is 31½ inches in length, the brake horsepower equals $\frac{\text{net load} \times \text{RPM}}{2000}$.

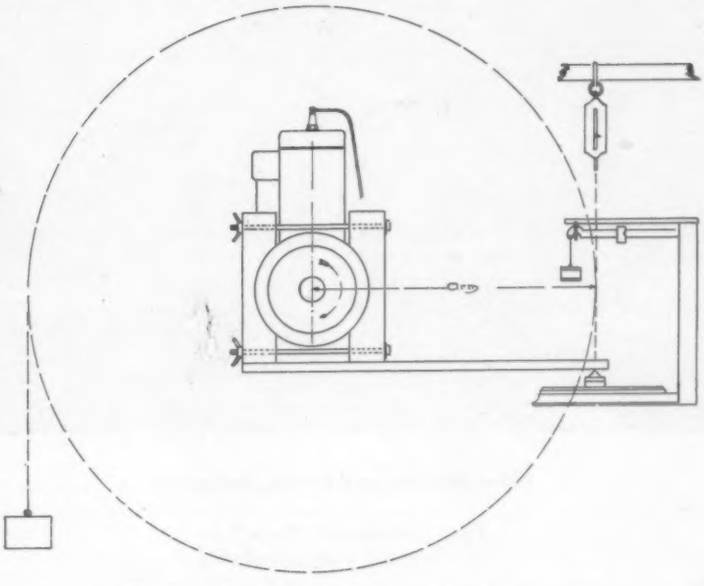


Diagram showing brake for measuring horsepower

The only way of getting brake horsepower exactly is to test it with a brake. No formula will give infallible results. To know what horsepower is probable, however, we resort to a formula.

A good rule for computing probable horsepower is the following:

$$\frac{D^2 \times N \times S \times \text{RPM}}{C} = \text{B.H.P.}$$

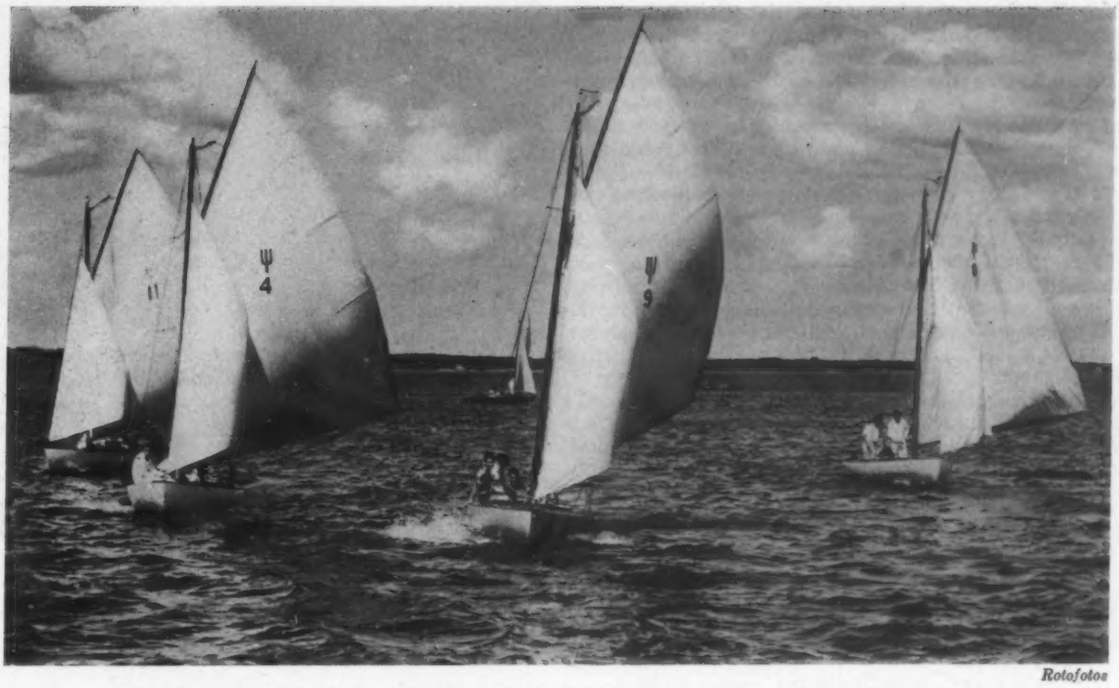
D = diameter of cylinder in inches.
N = number of cylinders.
S = stroke in inches.
RPM = revolutions per minute
C = the coefficient.

(*Continued on page 78*)

Photo by F. Schensky

Waves Breaking on the Mole, Heligoland

From "Wind and Water," by
Dr. Manfred Curry, Scribner's



Rotofotos

Start of the Moriches Bay One-Design Class during the recent annual racing cruise of the Great South Bay Yacht Racing Association

Racing News of the Month

Great South Bay's Cruise

AFTER a lapse of two years, during which the event was held in one spot, the Great South Bay Yacht Racing Association returned to the cruise idea for its seventeenth annual championship regatta and held races at seven different ports between July 30th and August 6th. In many ways the return to the old order was a success — more clubs had a share in the activities, yachtsmen raced under a wider variety of conditions and the runs from port to port lessened the possibility of competitors becoming bored with their surroundings.

On the other hand, certain events occurred that combined to leave unpleasant memories. For some reason never explained to anyone's satisfaction, officials of the International Star Class supervising the fourth annual Commodore George W. Corry Trophy series, and newspaper writers and picture men, were barred from the official committee boat.

The newspapermen didn't take the edict of the race committee too seriously, but the Star Class officials and skippers made the welkin ring with outspoken criticism of such treatment. This was too bad, for the Stars mustered the largest unit in the fleet — 23 boats — and put on a lot of grand racing.

The hit-or-miss way of establishing starting lines and setting finishes caused no end of "squawks" in the Star fleet and in some cases they were justified. Starting lines hardly long enough for a dozen boats were used for 23 Stars and at least once the finish line was parallel to the last leg of the course. The confusion can be easily imagined. The result of the committee's treatment of the class and its failure to provide good racing conditions undoubtedly will be, in 1933, a divorcing of the Commodore Corry Trophy series from the regatta. Star Class officials will run this major event themselves at ports away from the rest of the fleet unless the matter is straightened out.

After a tie in the regular five-race series with Lloyd N. Emory's *Seeadler*, from Bay Shore, David H. Atwater's *Moonshine*, of the Narragansett Bay fleet, won the sail-off for the Corry Trophy. Third place in the series went to *Wings*, owned by Carl and John Pflug, who had won in 1930 and 1931. Harold Halstead's *Chuckle II* was fourth, and Harry Meislahn's *Sunbeam*, fifth. Two of the races were won by *Jubilee*, sailed by Herc and Bill Atkin, of Western Long Island Sound, but their inability to race in the dirty blow that spoiled Wednesday's regatta kept them out of the championship quest.

Aside from that day, when only 41 raced, the fleet averaged 100 boats. Two skippers, young Northam Warren, Jr., in Class P, which he won in 1931, and Bob Day, repeating in the "SS" sloops, went through the week without defeat. Day's feat in the well-populated SS Class, won him the Fire Island Gold Cup for the best average in any division. Warren's *Edna* also won the Association Trophy for the best corrected time over the Sayville course on Friday. *Edna* had won it twice before under different skippers.

Race week championships were awarded as follows:

Class P — *Edna*, Northam Warren, Jr. Interclubs — *Typhoon*, H. A. Bonyun. Islip one-designs — *Zim-Zim III*, Dr. G. H. Zimmerman. Class R — *Manitou*, F. L. Wyckoff. Class V catboats — *Reliance*, W. F. Ketcham. Moriches Bay sloops — *Ethel*, Harold R. Medina, Jr. Shorebirds — *Red Head*, Howard E. Post, Jr. Bellport Bay sloops — *Lady Killer*, G. H. Ince. Amityville one-designs — *Gull*, J. B. Harris. Fire Island one-designs — *Dusty*, David J. Pearsall. SS sloops — *Pickle*, F. & T. Day. Stars — *Moonshine*, D. H. Atwater. Ambrose Channel Lightship cruiser handicap race — won by *Bob Ett*, Sinclair L. Raynor, South Shore Yacht Club, Freeport.

EVERETT B. MORRIS

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Annual Regatta at Edgartown

A NEW high water mark for open regattas in Southeastern New England was established at the ninth annual yachting conclave of the Edgartown Yacht Club, when 189 large and small boats crossed the starting line in twenty-two classes, an increase of twelve yachts over the club's open event the year before. Every yacht club that encourages sail boat racing between Horse Neck Beach and Monomoy Point was represented, as well as half a dozen others in Long Island Sound and Massachusetts Bay.

Old Man Weather rather frowned on the affair early in the game and the first eight classes merely drifted across the starting line, but he recanted later and sent most of them home on the wings of a six-knot nor'easter, some of them to nearly split-second finishes.

Commodore Ralph E. Forbes' new Alden sloop *Lark* of the Quissett Yacht Club won in the sloop class; Vice Commodore H. Nelson Emmons' *Gem* of the Beverly Yacht Club in the 30 Square Metres; Henry Holcomb's *Sonnet* of New Bedford outsailed rivals from Quissett and Wood's Hole in Class S, and David Masters' *Vicious Vic* of Nantucket beat E. J. Bliss, Jr.'s, *Oreol*, of Edgartown, by one second in the Vineyard Interclubs.

Thirty of the Crosby "18's" from Wianno and Hyannisport raced across Nantucket Sound the day before, sailed in the regatta in two divisions and then scudded back before sunset, E. A. Crossett's *Tomboy* and K. D. Steere's *Venture* winning most of the honors.

Vineyard Haven qualified in four classes, Quissett and Wood's Hole in three, and Nantucket in two, while Cape Cats and Cape Cod Knockabouts hailing from Menauhant and Waquoit, Stars from Osterville, and dinghies from Marblehead helped to fill out the picture.

W. U. Swan

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Beverly Crew Wins Prince of Wales Junior Internationals

SEVEN junior crews from the United States, two from Nova Scotia, and one representing New Brunswick, met to race for the second leg for the Prince of Wales Junior International Trophy at Lake Milo, Yarmouth, Nova Scotia, July 6th to 8th.

As last season, the races were sailed as an elimination contest. The course was four miles in length, with two laps, and with sufficient windward work to make good racing.

In the preliminary round Beverly Yacht Club, crewed by Dwight Fullerton and Thomas Walker, eliminated the Larchmont crew, Jack Keeshan and Paul Smith. The home club, Lakeside, represented by Douglas Dunn and Grahame Burrell, eliminated the Royal Kennebeccasis, of St. John, represented by Fred Brock and J. M. Belyea, in two straight races. Royal Nova Scotia Yacht Squadron eliminated Babylon, L. I., after going the limit. Pleon, skippered by Marion Leeson, the only girl competitor, downed Manchester. Eastern and Corinthian drew a bye, advancing to the second round.

In the second round, R. N. S. Y. S., crewed by George Brister, Jr., and Andrew Mackintosh, lost out in a stiff battle with Lakeside. Pleon, in a luffing, tack-splitting battle, was pushed out by Beverly after running it to three races, while Corinthian came home victor over Eastern. Two New England crews, Fullerton and Walker, of Beverly, and Wm. T. Haley, Jr., and his brother Jack, of Corinthian, reached the finals.

Photo, Eastern S. S. Co.

Junior crews, representing the United States and Nova Scotia, racing for the Prince of Wales Trophy on Lake Milo, N. S. The series was won by the Beverly Yacht Club crew

In the final series the yachts went over in a smother of rain, accompanied by a squally wind coming in puffs out of the northeast. In the opening race Beverly came home a winner. Corinthian challenged in the second, leading to the first mark, but Beverly came up on the run to force Corinthian at the second mark and take the lead, finally crossing the line for a second victory. For the third race Corinthian changed boats, but again Beverly took the lead and won the series with a third successive victory.

Lakeside Yacht Club succeeded in holding the H. H. Raymond Consolation Trophy of the series for Canada. This trophy was in competition for all crews but the finalists.

The winning crew was presented with a replica of the trophy as their permanent property, and the 1932 leg on the main trophy was credited to their club. Three wins will take permanent possession of the Prince of Wales Bowl, although it is expected that reoffering will make the trophy perpetual.

Captain Vern

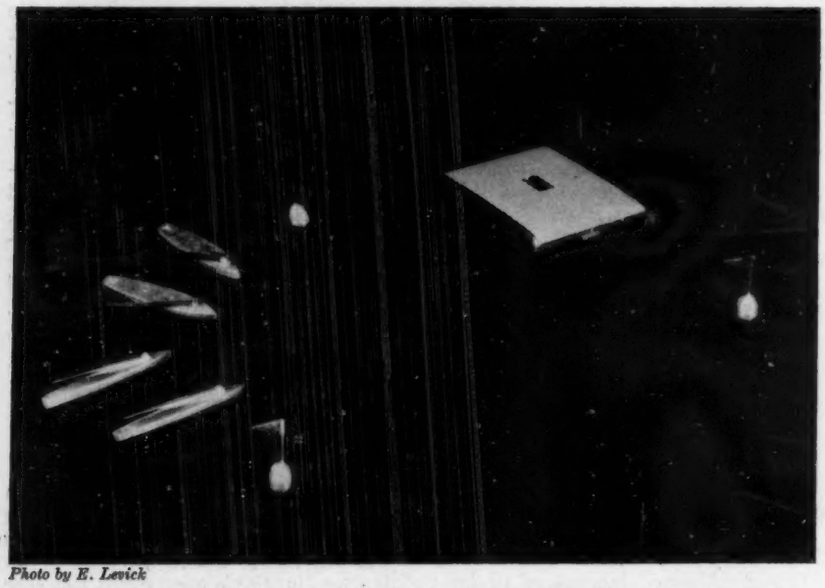

Photo by E. Levick

Bring on your protests! A unique device for showing positions of boats in points under dispute. It was devised by Ernest Stavey, of the North American Yacht Racing Union, and consists of four boats, and two marks of the course, all in dural metal, and a monel metal case

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Around the World in a Square-Rigger

YACHTSMEN and all those followers of the sea who have dreamed of making a voyage in a square-rigged ship will have the opportunity this September of joining the reconditioned *Star of Alaska*, one of the finest and fastest of the Alaska Packers, for a voyage around the world starting from the Pacific Coast.

The voyage has been organized to provide an opportunity for young Americans, ranging in age from upper classmen in preparatory schools to college graduates who are still able-bodied enough to do a share in handling a full-rigged ship, to learn seamanship and see the world in an adventurous fashion. There will be a professional crew of sailors and officers, but all applicants are expected to do a full share of work in handling the vessel.

Godknows

At the recent outboard regatta at Chicago one of the boats spilled her pilot and went right through both sides of the power cruiser "Roamer," anchored near the course. No one was injured

The itinerary, depending on the weather, will include numerous of the South Sea Islands, Australia, the Dutch East Indies, ports and islands in the Indian Ocean, Cape Town, African ports, and the Atlantic Islands. The cruise will cover some 30,000 miles and will require a period of ten months to a year.

Courses in navigation and various special college subjects necessary to fulfill entrance requirements or complete deficiencies will be given on board.

Further information regarding the cruise and the cost of passage may be secured by writing to S. T. Henry, Director, Windjammer World Cruise, Spruce Pine, N. C.

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Chicago Outboard Regatta

ATTAINING a speed of 46.16 m.p.h., Arrel Reinking of Indianapolis, won the Commander Eugene McDonald Trophy raced for in the new World's Fair lagoon course at Chicago, July 31st. Sanctioned by the N.O.A., the regatta was said to be the most successful ever held in Chicago, from the viewpoint of spectator attendance, 15,000 paying admission, and the large participation. The country's most famous drivers, seventy of them, including Reinking, "Wade" Woodworth, Art Jacobs, Ray Hulitt, Horace Tennes, Jack Maypole, Jack Wood, James Nunneley, Jack Smith, Walter Widegren, Hub Myers, "Rust" Heinz, and Tommy Estlick — a veritable bluebook of national drivers — took part.

Taking the C, Division II event, Cal Leeth, of Cullman, Alabama, approached within 1.82 m.p.h. of the world's record for that class in competition, traveling at 44.33 m.p.h. Leeth spent his last cent in driving his boat and trailer 700 miles to Chicago, and his winnings assured him of the "wherewithal" to return home and take a rest. The Class F, Division II race was entered by 17 starters, the largest field in competition ever racing in Chicago. This was taken by Fred Nickels, of Kansas City, Mo., who ran at a speed of 44.11 m.p.h., just about three short of a record.

Rounding the south buoy in the race won by Nickels, was Fred Harvey, of Milwaukee, in third place. The entries were so numerous, and on that account the water so rough, that young Harvey was thrown out at the turn, and his boat, relieved of the weight of its owner, decided to step out for herself. And for 2000 feet the 16-foot swordfish type outboard sped at 60 unofficial miles per hour until it rammed the *Roamer*, 34-foot cruiser which was anchored among 50 or more yachts in the center of the course, watching the races. Mrs. Elliott, wife of the cruiser's owner, was preparing dinner in the galley when this outboard crashed entirely through both one-inch plankings and came out a foot on the other side. The outboard hit square on, half a foot above the waterline, and it was not until the party was taken off by the Coast Guard and the cruiser towed out into the lake, that it began to fill with water. A crane at the Motor Boat Mart on Navy Pier lifted her out, just as she was about to go awash. A like occurrence has never been recorded in boating history.

JACK A. WARING, JR.

SUMMARY

CLASS A, FREE-FOR-ALL:
1st, Art Jacobs, Chicago, 35.02 m.p.h.; 2nd, Jack Maypole, Chicago; 3rd, Arrel Reinking, Indianapolis

CLASS B, DIVISION I:
1st, Jack Maypole, Chicago, 37.19 m.p.h.; 2nd, Arrel Reinking, Indianapolis; 3rd, Warren Jones, River Forest, Ill.

CLASS B, DIVISION II:
1st, Walter Widegren, Glen Cove, L. I., 38.13 m.p.h.; 2nd, Jack Wood, Detroit; 3rd, Clyde Weston, Granite City, Ill.

CLASS C, DIVISION I:
1st, Jack Smith, Park Hills, Ky., 43.90 m.p.h.; 2nd, Arrel Reinking, Indianapolis; 3rd, Horace Tennes, Chicago

CLASS C, DIVISION II:
1st, Cal Leeth, Cullman, Alabama, 44.33 m.p.h.; 2nd, Bill Ivy, Cincinnati; 3rd, Kirby Raab, Milwaukee

CLASS F, DIVISION I:
1st, James Nunneley, Detroit, 45.68 m.p.h.; 2nd, Jack Smith, Park Hills, Ky.; 3rd, Arrel Reinking, Indianapolis

CLASS F, DIVISION II:
1st, Fred Nickels, Kansas City, Mo., 44.11 m.p.h.; 2nd, Cal Leeth, Cullman, Alabama; 3rd, Jim Lino, Chicago

RUNABOUTS, FREE-FOR-ALL:
1st, Bud Peacock, Evanston, Ill., 34.22 m.p.h.; 2nd, Fred Ludolph, Chicago; 3rd, Jun Fugita, Chicago

MCDONALD TROPHY, open to both divisions and up to Class E: 1st, Arrel Reinking, Indianapolis, 46.16 m.p.h.; 2nd, Horace Tennes, Chicago; 3rd, George Kuehn, Milwaukee.

Rotofotos

A foul in the Star Class during the recent racing cruise of Great South Bay yachts

Lake Yacht Racing Associatian Regatta at Cobourg

CONEWAGO, designed by Sparkman & Stephens, winner of the Canada's Cup at Rochester, was the outstanding performer in the Lake Yacht Racing Association annual regatta at Cobourg, Ontario, August 9th to 11th. Against five rivals, *Cayuga* and *Thisbe* of her own Rochester Yacht Club, and *Quest*, *Norseman* and *Vision* of the Royal Canadian Yacht Club, she took two firsts and a second under the smart helmsmanship of Wilmot V. Castle, wresting the regatta class championship Gooderham Cup from *Quest*, 1931 victor.

The winning of the Gooderham Cup by *Conewago* assured the Rochester Yacht Club of all of the important silverware in competition, for her sister "Eight," John Van Voorhis' *Cayuga*, annexed the Freeman Cup in the 130-mile long-distance handicap cruising race from Rochester to Cobourg; Newton Castle's Class R sloop *Shadow* took the Sir Thomas Lipton Cup, making her the class champion of the Lake and entitling her to represent Lake Ontario for the Great Lakes Class R championship on Lake St. Clair the first week in September; and Phil Farnham's *Kathea II* won the Mabbett Cup for best elapsed time among the 20-raters in the Freeman Cup race.

A new handicap rule in the Freeman Cup race kept the judges figuring all Sunday night to determine the winner in that event. The outcome put *Cayuga* first, with corrected time of 20:33:10; *Conewago* second at 20:40:24; and *Patricia* third at 20:44:14. *Gardenia* finished ahead of the fleet of 37 starters at 8:12:29 Sunday morning. The race started at 9:50 Saturday morning with a quartering southwest wind down the Lake, shifting to a quartering northeast wind for the run up the Lake.

This year's regatta was featured by moderate to light airs and easy seas. The first day a 12-mile southwester furnished two close reaches and a run. The second day gave a southwester of six miles' strength, with a beat and two reaches, while the third day brought a southerly of six miles strength, with a beat and two reaches. There were 43 contenders at the regatta. The first seven classes sailed the nine-mile triangle twice each day and the remaining classes once.

Following is the summary of the leading boats in the various classes.

DIVISION 1

Yacht	*Club*	*Skipper*	*1st Day*	*2nd Day*	*3d Day*	*Points*
Gardenia	R. C. Y. C.	E. K. M. Wedd	1	1	1	6
Nonchalant	R. C. Y. C.	J. E. Hahn	2	2	2	3

DIVISION 2

Cara Mia	R. C. Y. C.	H. K. Hill	3	1	1	10
Patricia	R. C. Y. C.	T. K. Wade	1	2	2	10
Nutmeg III	R. C. Y. C.	J. H. MacGregor	2	3	4	6
Iroquois II	R. Y. C.	F. Christie	4	4	3	4

DIVISION 3

Conewago	R. Y. C.	W. V. Castle	1	1	2	17
Thisbe	R. Y. C.	W. P. Barrows	2	3	1	15
Quest	R. C. Y. C.	R. C. Davison	3	2	3	13
Norseman	R. C. Y. C.	K. Slater	4	5	5	7
Cayuga	R. Y. C.	J. Van Vorhis	5	4	6	6
Vision	R. C. Y. C.	R. G. O. Thomson	6	6	4	5

DIVISION 4

Anitra	R. C. Y. C.	M. Macrae	1	1	1	4
Zoraya	R. H. Y. C.	H. LaBatt	2			2

DIVISION 5

Shadow	R. Y. C.	N. Castle	5	1	2	28
Safara	R. Y. C.	W. P. Farley	3	3	2	23
Kathea II	R. Y. C.	P. Farnham	8	5	3	20
Tycoona	B. C. C.	E. Wilkes	4	7	4	21
Trojan	B. C. C.	E. DePont	1	2	6	27
Bobcat	B. C. C.	E. Mitchell	dis	4	1	19
Nirie	B. C. C.	Booth	2	9	8	17
Spry	B. C. C.	C. B. Ferris	6	10	5	15

DIVISION 6

Banshee	B. C. C.	Adams, etc.	1	1	1	9
Nayada	R. C. Y. C.	T. B. F. Benson	no start	2	2	4
Wenonah	O. Y. C.	Fred Lewis	2	3	3	4

DIVISION 7

Ontario	C. Y. C.	S. MacKean	1	2	2	10
Saita	Q. C. Y. C.	Adams	no race	1	1	8

DIVISION 8

Grayling	Q. C. Y. C.	L. Muir	1	1	1	9
Four Winds	K. Y. C.	L. F. Grant	2	2	2	6
Naiad	N. Y. C.	Ball	3	3	3	3

DIVISION 9

Cricket,	R. C. Y. C.	C. E. Bonnell	1	1	2	14
Cicada	R. C. Y. C.	D. C. Wells	2	2	3	11
Cocktail	R. C. Y. C.	S. A. Thompson	3	3	1	11

DIVISION 10

Iolanthe	R. C. Y. C.	A. Harrison	1	1	1	6
Sirene	Q. C. Y. C.	F. Arman	2	2	2	3

D. F. LANE

"Gardenia," owned by E. K. M. Wedd, won three firsts in her class at the Lake Yacht Racing Association regatta

"Weetamoe" vs. "Vanitie"

VANITIE and *Weetamoe* resumed their duel late in July with a five-race match at Marblehead and Newport, the latter winning the series three to two, together with a handsome sweepstakes plate, and the continued possession of the Constellation Cup, given some years ago by Commodore Arthur Curtiss James of the Ida Lewis Yacht Club.

Weetamoe was easily the faster boat in any breeze over six knots, but *Vanitie's* new lofty rig wafted her at a trifle better speed in light airs, especially when she broke out her enormous double spinnaker, with its 17,000 square feet of No. 3 duck.

In the first race sailed at Marblehead on July 23rd, under the auspices of the Eastern Yacht Club, over a 23-mile triangle in a moderate breeze, *Weetamoe* won by 5 minutes and 1 second on corrected time. The next day, under the management of the Corinthian Yacht Club, *Vanitie* emerged the victor by 3 minutes and 37 seconds, after deducting her allowance of 7¼ seconds a mile. This race was also over a 23-mile triangle in very light airs, with *Vanitie* leading most of the way.

In the first race sailed at Newport, on July 29th in a 15-knot breeze over the Block Island course, 15 miles to windward and return, *Weetamoe* climbed up the wind astonishingly fast, and, although overhauled somewhat on the run, she won by 14 minutes and 26 seconds. The following day *Vanitie* squared the match in a drifting affair over a 29-mile course by a margin of 6 minutes and 24 seconds. In the last race, on July 31st, sailed in a moderate breeze over a 27-mile triangular course, *Weetamoe* scored by 9 minutes 22 seconds.

Harold S. Vanderbilt sailed *Weetamoe* in most of her races, although spelled a few times at Marblehead by Richard Boardman, and handled her during the New York Yacht Club Cruise, while Gerard Lambert was at the wheel of his own boat throughout the series.

W. U. SWAN

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"Tidal Wave" Wins Riverside-Middle Ground Race

TWENTY-TWO cruising auxiliaries faced the starter in the second annual Riverside-Middle Ground Race on the evening of Saturday, July 16th. After a tedious game of hide-and-seek with stray puffs of south and southwesterly airs, fourteen of them managed to finish the following afternoon after a slow and disheartening battle over the 50-mile course set by the sponsors of the race, the Riverside Yacht Club, of Riverside, Connecticut. The winner turned up in Samuel Wetherill's chunky jib-headed ketch *Tidal Wave*, 32 feet over all, which finished some five minutes behind Arthur Jennings' 37-foot yawl *Contest*, to win handily on her time allowance. The sloop *Mumsey* finished about an hour ahead of both *Contest* and *Tidal Wave*, but was declared ineligible by the race committee, and disqualified.

After a dinner at the Riverside Club, the fleet got underway for the start off Flat Rock Buoy, near Greenwich Point, and crossed the starting line at 10.30 P.M. in a light southerly air. *Tidal Wave* led for a while, but was soon passed by *Tinavire* and *Mumsey*. Keeping well to the southward, *Mumsey* and *Tidal Wave* held what breeze there was, and worked out a big lead on the rest of the fleet. *Tidal Wave* led *Mumsey* by almost two miles halfway to the turn, but the slippery sloop managed to pull through the lee of the heavy ketch and round Stratford Shoal Light 3 minutes ahead. *Contest* was some 20 minutes behind, followed by *Elda*, *Tinavire* and others, which had made slow going of it somewhere in the middle of the Sound.

The wind was ahead, light, shifty, and fluky, all the way home. *Mumsey* went fast in this going and established a good lead. *Tidal Wave* managed to keep ahead of *Contest* until within a mile of the finish, when the Jennings yawl got by her to cross the line some five minutes ahead. *Tinavire* stood to the southward on the way back, and, picking up a southerly slant, got by *Elda*.

The flukiness of the weather is shown by the fact that the leading boats, halfway home from Stratford Light, encountered several contestants still trying to get to the Middle Ground. Soon afterwards, the latter decided that discretion was the better part of valor, turned around and came home under power.

Besides winning first prize, *Tidal Wave* also wins a leg on the handsome Commodore Pierce Trophy, which will be kept by the Larchmont Yacht Club for one year, and which is to become the property of the club whose entrants first win it three times. Last year's winner was H. S. Sayers' cutter *Narwhal*, of the City Island Yacht Club.

Summary:

Boat and Owner	*Finish Sunday* P.M.	*Corrected Time*
Tidal Wave, S. Wetherill	2:38:49	14:32:17
Contest, A. O. Jennings	2:33:36	16:06:23
Elda, D. B. Hawley	3:10:57	15:43:44
Tinavire, L. B. Lockwood	3:00:06	16:26:28
Ontr'Noo, E. C. Collins	4:28:25	16:28:54
Cynara, R. H. Moore	4:11:08	17:13:46
Loon, J. W. Jordan	5:01:37	17:15:47
Josephine, A. W. Pratt	4:27:30	17:16:16
Adelante, J. S. Parsons, Jr.	5:26:48	17:19:04
Vega, E. Dominick	4:58:20	17:32:05
Voyager, E. J. Ross	7:42:14	19:58:50
***Nancy Jane*, H. L. Brown	8:19:00	20:16:47
***Fair Tide*, W. P. Palmer	8:24:00	20:18:07
Cap'n Buck, R. H. Brookhart	9:04:00	21:28:47
**Mumsey*, Frederick Gade	1:34:47	13:27:29

The following did not finish: *Lucia*, E. A. Nordholm; *Northern Light*, A. P. Gest, Jr.; *Two Brothers*, R. Chetwode; *Emily O*, J. C. Roper; *Wamawa*, Thurston Smith; *Half Moon*, A. E. Whitman; *Sinbad*, C. L. Marsh.

*Ineligible
**Unofficial

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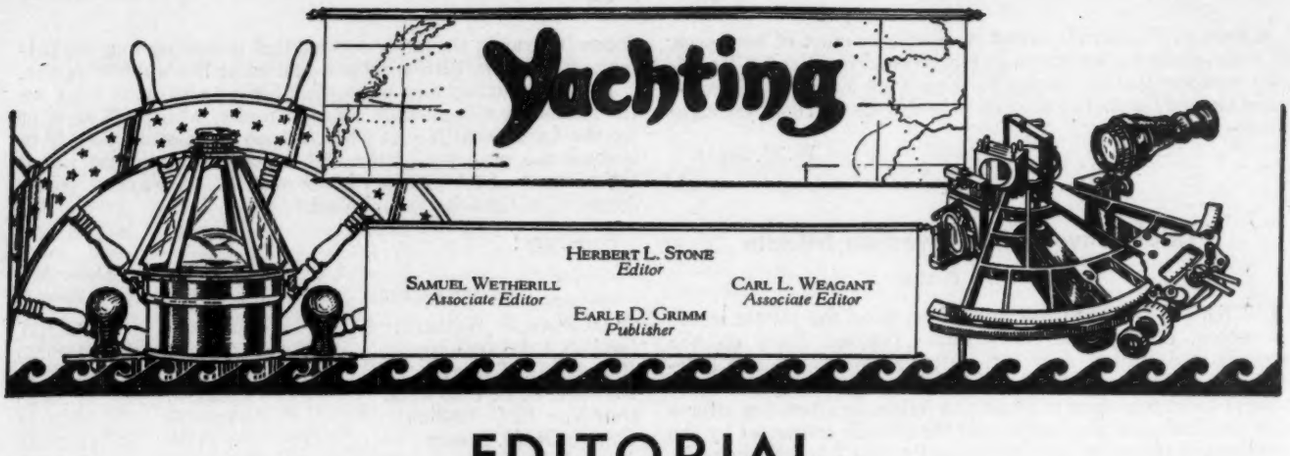
Harry Pidgeon Reaches St. Thomas En Route to Los Angeles

A RECENT report in the *New York Times* stated that Harry Pidgeon had dropped anchor in St. Thomas after a good passage from New York by way of Bermuda in the 34-foot yawl *Islander*, which he sailed single-handed around the world. He intends to sail *Islander* back to Los Angeles, her home port, where she will be permanently placed in a museum. After this he may build another boat for his home.

Launching of "Antonia," a new 77-foot cruiser designed and built by the New York Yacht Launch & Engine Co., for Frank Feeney, of Philadelphia. Two 100 h.p. Standard Diesels furnish power



EDITORIAL

Old Boats vs. New

TIME was when owners of yachts that did not win races, for one reason or another, took delight in tinkering with hull or rig, or in making drastic changes during the winter aimed at putting them "back in the running." Those were the days when a man kept his yacht more than a season or two, and long enough to become attached to her. With fertile ideas on what made a boat go, such changes often put a beaten boat back among the winners and we can recall certain pronounced failures that later in life proved successful prize gatherers. But the bull market of the late twenties, and the desire for quick results, changed all that, and a beaten boat soon went into the discard.

It is gratifying, therefore, to note a swing back to the former habit and to see owners using brains and ingenuity in bringing old favorites to life. This has been most apparent in the case of the Gold Cup power boats, three or four of which have been rescued from the oblivion of seven to ten years and made winners over newer boats embodying the last word in design and power. Gold Cup and National Sweepstakes winners of the past three seasons, such as *Hotsy Totsy*, *Delphine IV* and *El Lagarto*, are good examples of what may be accomplished with not too expensive hull changes and with old motors rebuilt and tuned up by expert hands.

Among the sailing yachts the case of *Vanitie* may be cited. Here was a boat eighteen years old, outbuilt and outrigged, which, in the hands of an owner who had faith in her, was re-rigged (although at considerable expense) and put back where she apparently has nearly an even chance with yachts built years after her. It must bring an owner keen satisfaction to see such results accomplished. Would that more owners cared to do the same thing.

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Too Much Conservatism

SEAFARING men are traditionally conservative. They look with distrust on anything new or unfamiliar. Probably the nature of their calling makes them unwilling to trust their lives at sea to anything untried or not proved by the test of time. But why yachtsmen should adopt this attitude is hard to comprehend, for yachting is supposed to be an experimental laboratory. Yet nearly every improvement in design, rig, or appliance for handling gear is first looked upon with distrust, then tried out in half-hearted fashion, and, later, like as not, barred by some special rule seeking to preserve the *status quo*.

It took several years and a good trimming by a foreign boat to convince us of the value of the so-called Genoa jib. The advantages of small sheet and halliard winches are still unappreciated by many yachtsmen, especially by the conservative British sailor, brought up on the supposedly superior merits of "beef and brawn." The latest example of this conservatism is the slowness to recognize the undoubted advantages of the big parachute or balloon spinnaker. Although we have been told of the value of this sail for over a year, we have only lately tried it out, and already the tendency is to restrict its use, rather than to improve upon the principle it embodies. A picture taken on the Solent during the recent Six-Metre team match shows all the American boats using this balloon spinnaker in one form or another, while all their competitors carried the small pocket-sized handkerchiefs supposedly imposed by the measurement restriction. The challenger for the Canada's Cup last month neglected to provide herself with such a sail, to her sorrow. Why, in the case of such important races, anyone should fail at least to test the merits of something that has proved itself elsewhere is hard to understand except on the grounds of excessive conservatism.

Undoubtedly, some restrictions will eventually have to be placed on this sail, as they have been in the case of Genoa jibs, winches, and other contrivances, but before this is done the full possibilities of the sail should be explored.

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British to Try Again at Detroit

ANY early doubts as to the probability of England trying again to wrest speed boat honors from us were set at rest when *Miss England III* broke all previous records in Scotland recently. The challenger and her pilot, Kaye Don, have both arrived here, and everything is set for another meeting between Wood and Don this month.

Since last year several changes have been made for the conduct of the event at Detroit which should insure a fairer race than the one of last September. These include a change of course. We understand, also, that *Miss England III* will be asked to meet only one boat owned by Wood, and not two, as she had to do last year. This latter was a feature of previous contests at Detroit to which we took exception, and which in the last analysis was the cause of the fiasco and the bitter controversy it engendered in the last match. May this year's event be as harmonious as the last Republican Convention, and may the *fastest* boat win.

IN THE WORLD OF YACHTING

WILMOT V. CASTLE

UP ON Lake Ontario, Wilmot V. Castle, or "Rooney" Castle, as he is known in yachting circles, does not need to be introduced to sailormen. His masterful handling of the "Conewago," successful defender of the Canada's Cup for the Rochester Yacht Club last month, stamps him as a racing skipper of unusual ability. Yet those who knew him best, or had sailed against him previously, did not have to wait for this international match to recognize his skill.

In 1930 "Rooney" Castle sailed "Cayuga," a syndicate Eight-Metre built that year for the defense of the cup that means as much to the Great Lakes sailors as the America's Cup does to salt water yachtsmen. The racing was keen that year and "Cayuga" and "Conewago" were both beaten out in the trials by W. P. Barrows' "Thisbe." The following year Castle became part owner of "Conewago" and he has thus had her for two years and was successful this summer against the same two yachts in the elimination series, and was chosen to defend, winning the international match against the Canadian "Invader II" by three races to one.

"Rooney" Castle acquired much of his racing experience in various sizes and types of yachts on Lake Ontario, but in recent years he has been seen chiefly in the 20-raters, "R" Class, where in 1929 and 1930 he owned and sailed "Safara" in that hot class.

The race last month was his first big international match as skipper.

Letters from Our Readers

A Suggested Method of Rating

Editor, YACHTING:

WHILE sailing men continue to cuss, alter and "improve" intricate mathematical formulas of rating and handicapping, our sometimes despised motor boating friends obtain justice by considering *power* only as the basis of comparison.

An inclination to *penalize*, rather than *prohibit*, undesirable or unsuitable types of craft, and a tendency to penalize a yacht for her *speed*, have confused the principles of rating and handicapping sailing craft.

If windjammers are rated upon a basis of sail area only, types of yachts which are unsuited to a course — such as our ocean race courses — may easily be *prohibited* by the application of a simple formula of *restrictions* based upon ratios of sail area, overall length, load waterline length, beam, freeboard, scantlings, &c.

Such a method of rating would afford justice because it would favor yachts which could obtain the greatest speeds from their rated *power*. The restrictions, if simply and properly defined, would protect such able cruisers as enter the ocean races from unfair competition with racing types or unseaworthy "freaks."

This method of rating and restricting would be clean-cut, easily handled by a race committee and clearly understood and analyzed by entrants and prospective entrants who lack Einstein's mathematical education. It would permit a broad latitude of design of hull and sail plan, and would keep design and construction within reasonable limits of any certain class of yachts suited to a given course.

This theory is probably a very old one for I recall first hearing it in those days when advocates of gaff-headed sails laughed at a leg-o'-mutton. Its adoption has been frowned upon because it would spoil the fun for the slide-rule artists!

GIDGE GANDY

A Letter from Thomas Ratsey, Esq.

(The following letter was sent us by Mr. Clifford Mallory, to whom it was addressed, and is published here because of its interest to yachtsmen. — Ed.)

IT WAS kind of you to remember my 81st birthday, — your cable was forwarded on to me at Ramsgate as I raced there on the 4th, 5th and 6th in my old fishing boat the *Dolly Varden*.

We were very successful, won a £100 Gold Challenge Cup accompanied by £20, £15 for another 1st prize and £4 for a 2nd. We were away exactly a week, had excellent weather for the passage making, turned 120 miles every inch of the way back. Stopped under Dungeness and Littlehampton for the two east going tides which happened to come in the middle of the night, so we had all our nights in and had a great reception at the R. Temple Y. C., Ramsgate.

It is very unusual for the Challenge Cups to be taken away from the Clubs, but the Commodore and Flag Officers wished me to do so, partly I think, to encourage interchange of members, — so here it is to have my name engraved on it with the rest.

It has been going now for over 30 years and won by many notable yachts, three times in succession by the *Bloodhound* of ancient days owned by the Marquis of Ailsa.

I was up against a boat my own speed, a 10-metre built by Mylne in 1908, of course, Bermuda, and also the noted *Clymene*, 12-metre Bermuda ketch built by Charlie Nicholson, and we managed to lick them.

Two things we discovered by this close racing — one that all hands had to be practically on the stemhead going to windward, quite contrary to modern ideas, and a loose-footed flax gaff mainsail, and as you know, I always love to beat a Bermuda with a gaff sail.

Yesterday we went down to Bournemouth and won another 1st prize. *Britannia* and all the rest of the "J" boats were racing there — it was rather a fluky day but *Britannia* managed to get in first, good for 39 years. They had one hard reaching day this week and *Britannia* licked her own class handsomely, but of course, the *Westward* being 12 feet longer, made an exhibition with her reaching powers.

Strange to say, on the first day's racing at Ramsgate I forgot all about my birthday and when many telegrams came down and I was hailed from the dock head, I thought some tragedy had happened, and not until I opened the first one, did I find they were congratulatory from my friends.

Believe me,

Always yours very sincerely,

THOMAS W. RATSEY

Twin vs. Single Screw

Editor, YACHTING:

CAN I put in my oar on the twin *vs.* single screw hydroplane dope that George Sutton brought up and John Hacker answered?

In the first place, I am in absolute accord with Hacker. Speed in the Harmsworth boats has been obtained primarily by increasing the horsepower and mighty little by engineering in the hull. The ill-fated 1931 *Miss England* was an exception; she was vastly over-engineered in many respects. She was lightning fast, but too difficult to handle. I do not believe that the single screw had anything to do with her troubles. The torque of her tiny wheel could have had very little bearing on that wide hull.

Where I would go further than Mr. Hacker is in pointing out the surprising lack of consideration of wind resistance at speeds of 100 miles, or even less. In actual wind-tunnel tests at only 45 miles the streamlining of the upper hull of a 151-class boat reduced the resistance about 25%. At 100 miles an hour dragging the wide sterns of the present crop of hydros must take several hundred horsepower.

Hull trim, as Mr. Hacker points out, is of primary importance, but hull trim is no more important with single screws than with twins. It is simply going back to primary school hydro design. Hull trim is the basis of all step-boat work. As far as I can see the only difference in considering hull trim for single or double screw boats is that the swept area of negative pressure adjacent to the wheels might be greater with two propellers.

Mr. Hacker's estimate of 150 m.p.h. with 4000 h.p. is modest. I am sure that better can be obtained, but the hulls will have to be engineered with due regard for the upper hull resistance, even to the extent of taking advantage of "upper surface lift" in the design of the superstructure.

GERALD T. WHITE

And Now For the Harmsworth!

By GEORGE W. SUTTON, JR.

NOW comes the eighteenth race for the British International (Harmsworth) Trophy which has been the world's greatest motor boat prize since Lord Northcliffe (Alfred Harmsworth) got the idea that motor boats were desirable racing vehicles and that their drivers could compete on a basis of keen but friendly rivalry. Millions of dollars have been spent in the quest of this trophy, which is this year celebrating the twenty-fifth anniversary of its first voyage to America, when E. J. Schroeder went abroad in 1907 with the first of those four grand old *Dixies* and captured it by running away from the two British boats, *Daimler I* and *Daimler II*, five times around a 7-nautical-mile course at the astounding speed of 27.6 nautical, or 31.2 statute miles per hour. *Dixie I* was a displacement boat 39 feet 11 inches long, with a 5-foot beam, designed by Harry M. Crane, now high in the councils of General Motors, and was fitted with a Crane-Simplex V-type 8-cylinder engine developing 132 horsepower. She was driven by Captain S. Bartley Pierce.

How different are the boats this year! Lord Wakefield and Gar Wood are both entitled to loud huzzahs for untying their purse strings at such a time as this and building new boats for a contest which, while somewhat valuable to marine science, results for the winner in nothing more tangible than an aura of temporary glory.

Kaye Don, in piloting the new *Miss England III*, will be enjoying one tremendous advantage over the doughty veteran of Detroit. He will have new motors, the finest that the Rolls-Royce Company can turn out under the subsidy and technical advice of the British Air Ministry. In her time trials in May, on Lake Garda, Italy, *Miss England III*, with the two Rolls-Royce engines from *Miss England II*, crawled at the snail's pace of a mere 106 miles an hour. This would never do against such a boat as *Miss America IX* which, at that moment, held the official world's record of 111.72 miles an hour. So back she went to England where her sturdy, safe-looking 35-foot hull, with its beam of 9 feet 6 inches, was equipped with two brand new Rolls-Royce Schneider Cup engines, each developing nearly 2,500 horsepower. Then she went up to Loch Lomond in Scotland and stepped out well enough to make a new world's record at the average of 119.82 miles an hour. The official "okay" was put upon her and she was shipped to America.

Thereupon Commodore Wood did something he told us he might do last year. He started a new boat, *Miss America X*, the longest and biggest racing hydroplane ever built — 38 feet long and 10½ feet wide. And into it he packed four great engines. But were these new engines? They were not. No new single engines of high power are being built in this country nor have they been built since Captain Woolson, the Packard experimental engineer who was responsible for the engines of the type Gar has been using, was killed in an airplane crash three years ago. Our government shows no interest in subsidizing the construction of huge aviation motors. Therefore, there is nothing in this country to compare with such mammoth power plants as those of Rolls-Royce, Napier, Fiat, and a few others.

Wood is using in his new defender the two motors from *Miss America IX* and the pair from *Miss America VIII* — a total of 6,480 horsepower. This power from four motors originally producing 800 horsepower each is due to new methods of supercharging which it is hoped will compare favorably with the supercharging methods used on *Miss England III* and which are a closely guarded secret.

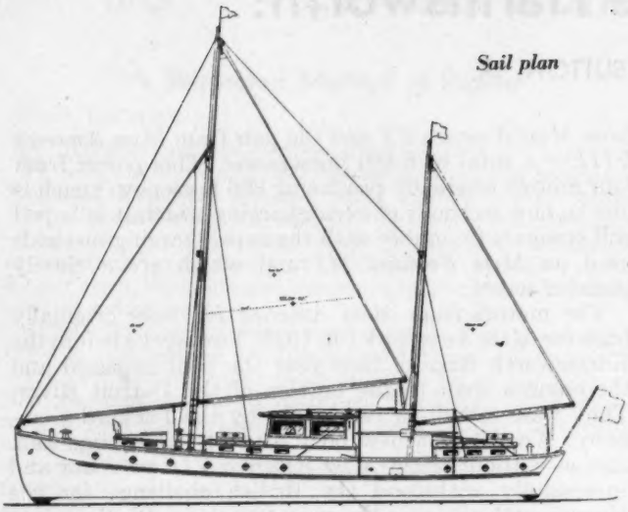
The motors from *Miss America IX* were originally built for *Miss America VI* in 1927. Two weeks before the Harmsworth Race of that year the boat capsized and the engines went to the bottom of the Detroit River. They were rebuilt in two weeks by the Packard Company. Wood had a new boat ready by that time and, almost without trials, *Miss America VII* went out and successfully withstood the British challenge for the Harmsworth. During the next two years these engines helped to establish two new world's records of 92.8 and 93.123 miles an hour. The career of that great boat was stopped short when, with Phil Wood driving it in Venice, it again capsized and sent the engines to the bottom of the water from which they were raised and put into the new *Miss America IX*. That craft, as you know, has five times broken the world's record in addition to the important detail of successfully defending the Harmsworth against Miss Carstairs' third attack in 1930. But make no mistake about it, *Miss America X* is a fast, reliable, easy-riding craft, even if she has not yet been driven for a speed record. The two motors from *Miss America VIII* helped that craft defend the trophy in 1929.

In other words, this will be a battle royal between the two most powerful motor boats ever built — 72 cylinders in all, totalling 11,480 horsepower.

Even more interesting than the boats, perhaps, are the characters and mental attitudes of the two drivers, Kaye Don and Gar Wood. Don is undoubtedly wiser and more experienced than he was in last year's race in which he was a comparative novice in motor boat driving. He is the typical suave, self-controlled, cool, British sportsman. The changing of the course from the Detroit River to a 7-nautical-mile triangle with easy turns out on Lake St. Clair, and the starting of the races at six-thirty in the morning, when calm water is most likely to prevail, should help him in negotiating the turns and keeping clear of entangling washes.

Gar Wood, after years of discouraging lack of competent competition, now realizes that England is camping right on the trail of the Harmsworth Trophy. There will be no repetition of last year's fiasco. Wood will run only one boat against the invader and you may be sure he will lean over backwards in avoiding any criticism such as occurred last year. As the one man in America who has had the courage and patience to spend hundreds of thousands of dollars in keeping high speed, unlimited power motor boat racing alive, he is certainly entitled to the enthusiasm which normally backs a national champion.

If everything goes smoothly, this should be a race worthy of breathless description to our great-grandchildren. The British motor boating editors are predicting that victory will go to the driver who gains the advantage at the start. I am inclined to agree with them. Anyhow, at six-thirty on the morning of September 2nd, and perhaps again on September 3rd and possibly on September 5th, we shall see what we shall see.

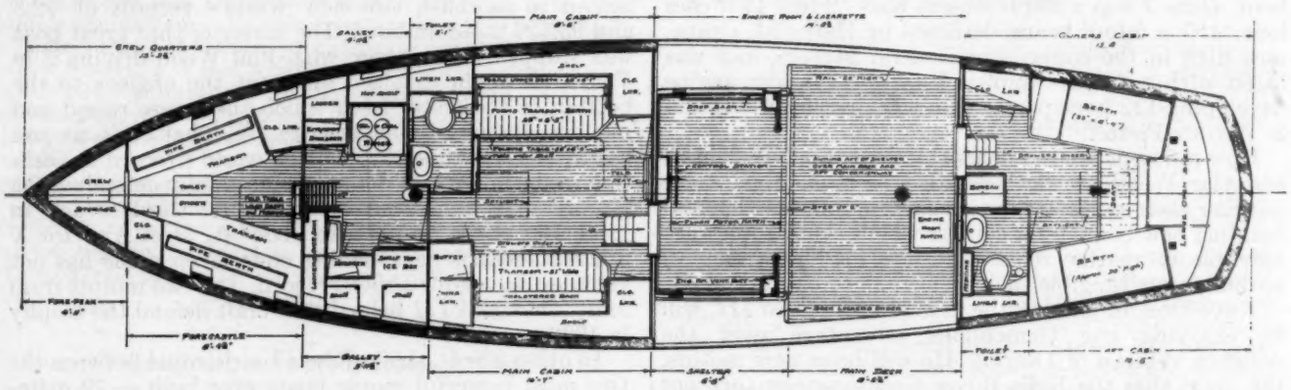


Sail plan

"Goosander"

HERE are the plans of *Goosander*, which is just about the last word in craft of the "50-50" type, according to her designer, Wm. H. Hand, for whom she was built this year by Hodgdon Bros. at East Boothbay, Maine. *Goosander* was admired by many people at New London before the start of the Bermuda Race, being a fine, able-looking craft of the following dimensions: l.o.a. 58′ 2″; beam, 14′ 10″; draft, 5′ 6″. Her designer states that she has a typical sailing craft bottom, will work to windward nicely under sail alone, and has logged in excess of 7 knots continuously with wind abeam. She is powered with a 175 h.p. Hall-Scott motor with 3:1 reduction gear, giving a cruising speed of ten knots and a maximum speed much higher.

An unusual feature is the after cabin, which extends all the way to the transom, forming a fine stateroom. The main cabin accommodates four and the forecastle two. She has teak decks, but no other outside bright work. The interior is walnut and cream.



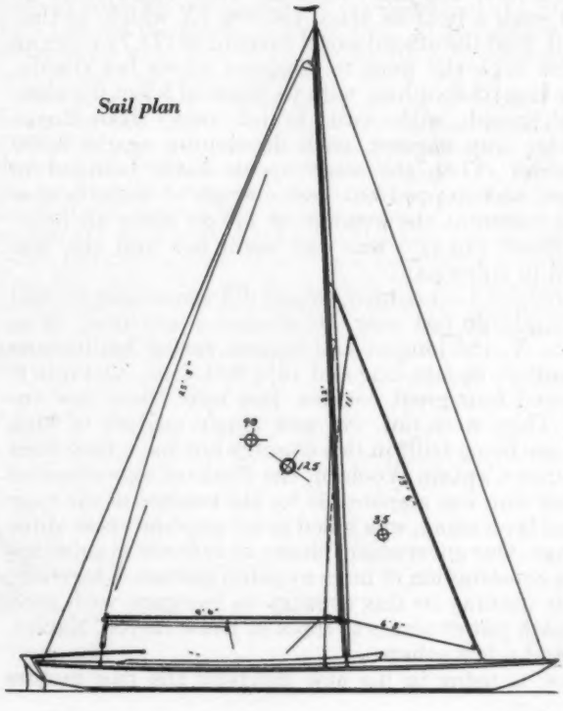
Interior accommodation plan of "Goosander," designed and used by her designer, Wm. H. Hand

A New Boat for the Suicide Class

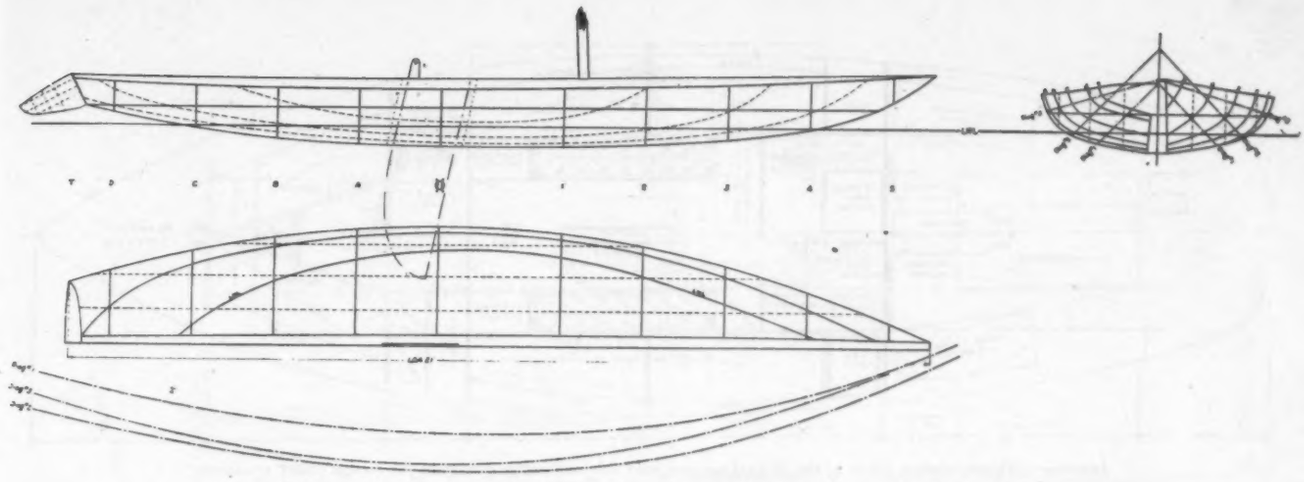
MANY ingenious and interesting craft, some round-bottomed and a few V-bottomed, have been built in the past few years for competition in the so-called Suicide Class, the real name of which is the Development Class, several articles about which have appeared in various issues of YACHTING. Believing that a round-bottomed boat could be built as cheaply as a V-bottom, and that a molded hull is more pleasing to the eye — and faster — Mr. Brownrigg L. Norton, of the Horseshoe Harbor Club, has worked up the design which appears on this and the following page, and will try conclusions with the Suiciders as soon as J. H. Perrine, the famous builder of Barnegat sneakboxes, gets the boat completed and rigged. She will be built on the sneakbox principle, and is of the following dimensions: l.o.a. 21′; l.w.l. 15′ 6″; beam, 5′ 9″; sail area, 125 sq. ft., with 90 sq. ft. in the mainsail and 35 sq. ft. in the jib. The rig is practically a normal Marconi, with jibstay, headstay and permanent backstay to the taffrail.

Though we are not expert in diagnosing lines of this type of boat, she appears to be a "saucer-shaped" craft of moderate beam, with full end sections and flaring topsides, tending to make a narrow hull when upright and a fast runner, with rapidly increasing stability as she heels in windward work. The diagonals are easy and fair, and the buttocks flat for speed off the wind.

She will be built with a dagger centerboard of wood,



Sail plan



Lines and body plan of the 21-foot sloop designed by Brownrigg L. Norton for the Suicide Class

with no lead for sinking it. Once down, a lanyard will hold it there, quick release being obtained by use of a jam cleat. Using a dagger board allows of a short trunk and increased cockpit space.

An unusual feature of so small a boat is found in the two cockpits, the forward one for the crew and the after one for the helmsman. In between is a deck 18″ long, for halliard and jib sheet cleats, jib sheet blocks, etc.

The principle on which the Barnegat sneakboxes are built has been thoroughly tried out and proved successful on the points of strength, durability and economy. Mr. Norton will soon know how it works out when applied to a Suicide boat, and if it is as successful as he anticipates, another season should see numerous newcomers in the fleet embodying the same form of construction.

A 44-Foot Auxiliary Cutter of Seagoing Type

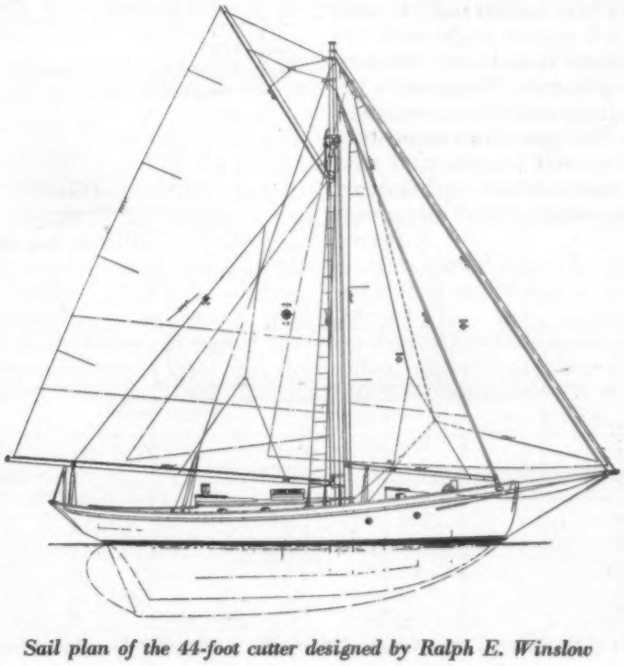
WITH the increasing prominence of the cutter rig on this side of the Atlantic, yachtsmen both here and abroad will be interested in the design on this and the following page of a gaff-headed craft of this type designed for hard weather work either alongshore or offshore. She is from the board of Ralph E. Winslow, of Quincy, Mass., who has turned out many successful cruising boats, and is of the following dimensions: l.o.a. 44′ 2″; l.w.l. 37′; beam, 13′ 4″; draft, 7′ 3″; sail area, 1250 sq. ft.; least freeboard, 3′. She will be of rugged construction, with copper fastenings and lead keel. Lead was chosen over iron because of its low price at present, its better effect on stability, and the fact that the hull may be coppered for use in tropical waters.

The ends are fairly short, as becomes a seagoing boat, while the sheer is lively, with nicely lifted ends. The design is a cross between a Friendship sloop and a Bristol Channel Pilot cutter, and shows a powerful hull that should sail on her bottom and take what comes without whimpering. The ample beam and lead keel, with low center of gravity, assure excellent stability.

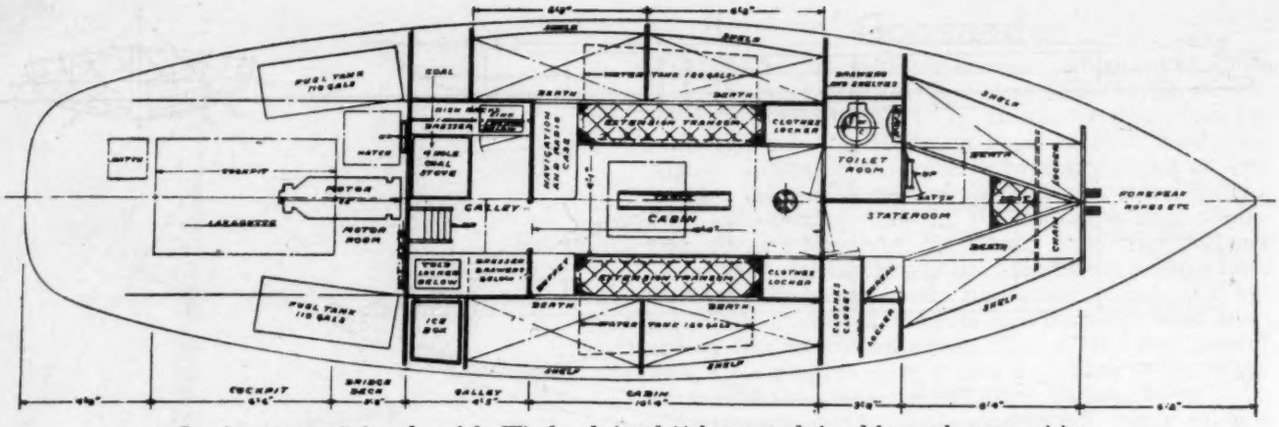
The designer prefers the gaff rig to the jib-header for seagoing work, believing that a reasonably short mast reduces the rolling tendency, especially when under power. Backstays should seldom be necessary, except when reaching or running in strong winds with spinnaker or large jib.

The interior accommodations are laid out for an all-amateur crew. Forward is a large double stateroom with closet, bureau, seat and berths, which could be used as an owner's room, ladies' cabin, or, with slight changes, as crew's quarters. A toilet room connects with the stateroom, both having full headroom. The amidships cabin has four built-in berths, two extension transoms, two clothes closets, table, buffet and combination radio and navigation case. Over seven feet headroom assures excellent light and ventilation.

A large galley, with every convenience, is located aft. Below the bridge deck and cockpit is the motor room, with gas and watertight bulkhead separating it from the rest of the ship. The power plant may be either a Gray 4-44 with reduction gear, or a Model VDR2 Ailsa Craig Aero Diesel with reduction gear. Tankage is provided for 220 gallons of fuel and 240 gallons of water. There is plenty of clear deck space for handling sails and gear, or carrying one or more tenders, and the cockpit is quite roomy, though not large enough to hold any great quantity of water.



Sail plan of the 44-foot cutter designed by Ralph E. Winslow



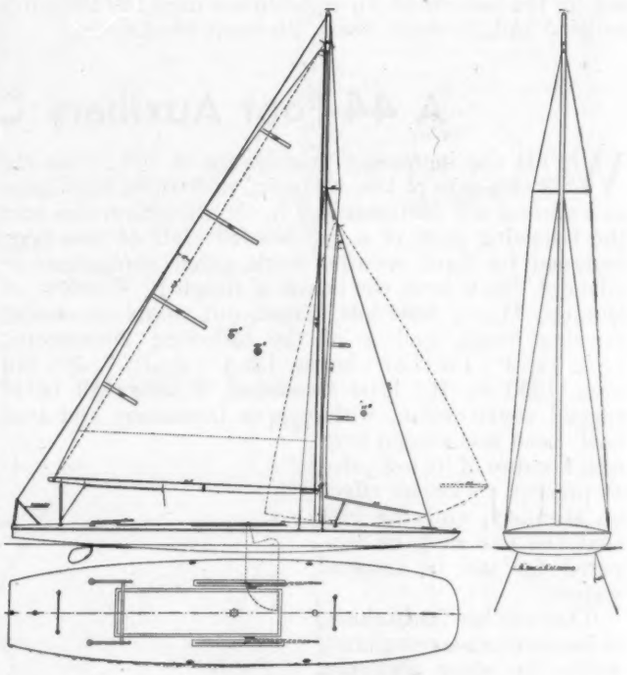
Interior accommodation plan of the Winslow-designed 44-foot cutter designed for rough water cruising

A Class E Scow for Inland Lake Sailing and Racing

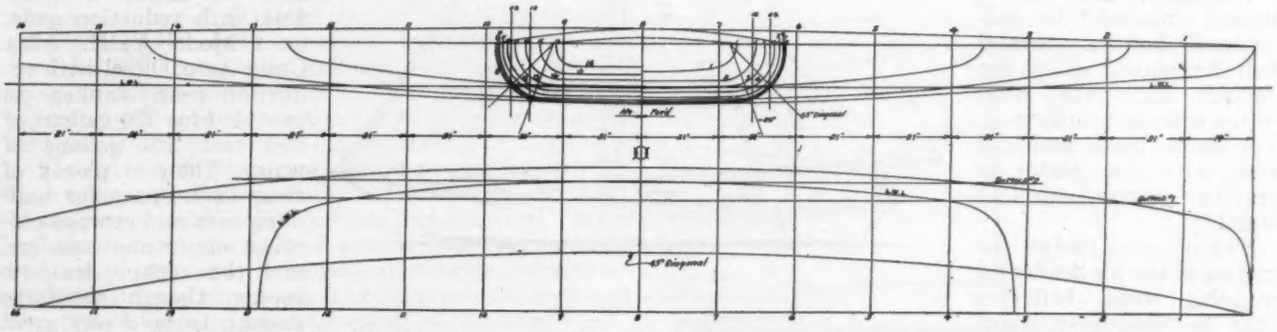
WITH the rapid growth of the 28-foot Class E sloop competition on the inland lakes, particularly in Wisconsin and western Michigan, the plans of a new craft for this class, designed by A. M. Youngquist, naval architect of Toledo, will be of great interest to "scow" sailors, inasmuch as Mr. Youngquist already has several successful designs to his credit, and is always foremost with the latest developments and wrinkles. The boat shown is 28′ over all, 6′ 8″ beam, 17″ molded depth amidships, and draws 4′ 5″ with boards down. Sail area, 285 sq. ft.

She is typical of the "scow" type, with double rudders and centerboards. The hull planking is "strip-planked" with white cedar, edge-nailed and edge-glued with casein glue, and fastened to the ribs with screws from within the hull, making a very tight, stiff hull with beautiful natural finish. Bilgeboards are of high carbon steel set at an angle of 20 degrees from the vertical. Standing rigging is of airplane cable, the permanent backstay, with deck spreader, eliminating the usual runners, being new to this class.

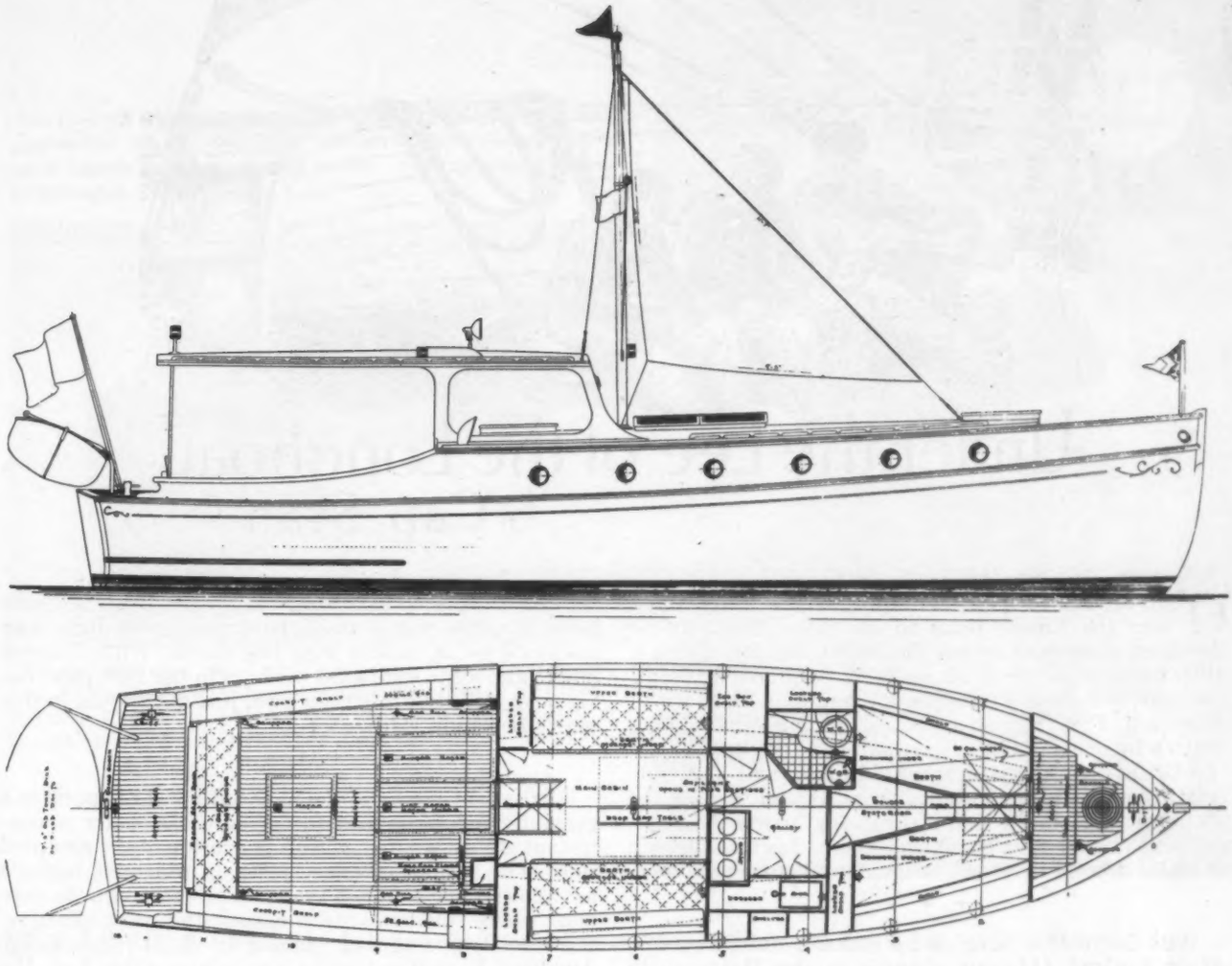
A second boat to be built to this design will be tried out with centerboards set at a 5-degree angle with the keel line, and another with curved boards and rudders, according to some of Curry's theories. These craft are better adapted to these innovations than boats equipped with single board and rudder. The speed and sensitivity of these "floating sidewalks" is well known, and with their moderate cost, both of construction and upkeep, accounts for their continued popularity and increase in numbers.



Sail, deck and rigging plans



Lines and body plan of the Class E scow designed by A. M. Youngquist for competition on the Inland Lakes



Outboard profile and interior accommodation plan of "Ailenroc II," designed by Winthrop L. Warner for Charles L. Killam

"Ailenroc II," an Excellent 39-Foot Raised Deck Power Cruiser

ALMOST every power cruiser one runs across these days, whether large or small, is of the type known as a "bridge deck cruiser." While the type has much to recommend it, there are still a few yachtsmen who prefer the older style "raised decker," which was in the ascendant ten or more years ago. A fine example of a modern raised deck power cruiser is shown in the plans on this page of *Ailenroc II*. She was designed by Winthrop L. Warner, of Middletown, Connecticut, and built by the Portland Yacht Yard for Charles L. Killam, of New Haven, Connecticut, who was more than pleased with several trial trips which proved that the boat acted and handled well under varying conditions of sea, and developed a speed of 12 miles an hour with her 90 h.p. Falcon motor.

The profile is distinctly pleasing, with good freeboard, nice sheer, and well balanced ends, all the lines being worked out in harmony with one another. The dimensions are as follows: l.o.a. 38′ 9″; l.w.l. 36′ 9″; beam, 10′ 5″; draft, 3′. She has both forward and after cockpits, the forward one being quite large, watertight, and scuppered outboard. The after cockpit is also self-bailing, and is fitted with a seat at the after end. The motor controls are on the starboard side. Three cockpit hatches give access to the motor, so that by opening one of the side hatches a person may stand alongside the motor and make adjustments without lifting either of the two remaining hatches. There is also a hatch over the lazarette. There is a permanent shelter over the forward end of this after cockpit, with fixed glass in the sides, and the windshield sash is hinged to open inboard.

The layout below is unusually roomy for a boat of her size. The main cabin, in addition to the two transom berths, has two uppers besides. There are clothes lockers with shelf tops, port and starboard, and a large drop leaf table. Light and ventilation are provided by a large skylight located partly over the main cabin and partly over the galley, with numerous portlights to help out.

The large galley, just forward of the main cabin, is fitted with a 3-burner alcohol stove, sink, dresser, ice box, etc. The toilet room is on the port side, and is jogged into the galley and forward stateroom. The forward stateroom is fitted with two berths, drawers and clothes locker, with companionway for access to the forward cockpit. A manhole gives access to the chain locker.

Under the Lee of the Longboat

by Cap Stan

OUR Six-Metre team certainly walked rough shod over the British team on the Solent in about as thorough a manner as anyone might ask for. Quite a different showing than we made in Bermuda earlier in the year, so I guess tuning up and handling had a lot to do with it. From British accounts, and a letter I've seen written by one of the American skippers, the handling of the British boats was unspeakably bad, and undoubtedly accounts for the lopsided score, though not for the victory itself. All of which is surprising, to say the least, as British handling in small boat events has usually been of high calibre. I bet it will be a different story next time.

+ + +

With Kaye Don hanging up a new world's record in *Miss England III*, our chances in the Harmsworth Trophy race at Detroit in September don't seem quite as bright as they did a few weeks ago. However, the Harmsworth Race is quite a different affair from a time trial over a mile straightaway, so don't be surprised if the newest *Miss America* takes *Miss England* into camp.

+ + +

Dwight Simpson, the Big String Bean from Boston, takes exception to one of my remarks in the last issue, and wants to know since when it has been obligatory in ocean racing to have an experienced crew? Well, Dwight, to be exact, since 1923, when the yawl *Chaos* was declared ineligible to race to Bermuda, one of the reasons being the inexperience of her master and crew. And don't be surprised, Dwight, if in the next Bermuda Race, a committee passes on the eligibility of each crew before allowing the boats to start — each contestant will be required to have a certain percentage of seasoned ocean racing men in her complement. Anybody want to place any bets?

+ + +

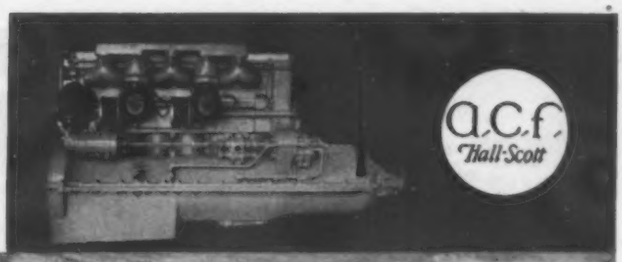
Tidal Wave is the first ketch, and the smallest boat, ever to win the Bayside-Block Island Race, which has been an annual event for twelve years. That a jib-headed ketch should win a race once in a while is not surprising to those who appreciate the possibilities of the rig, but that the smallest boat should win is rather a facer, particularly as the time allowances were reduced this year, thus favoring the larger craft. But the tables are almost sure to be turned next year, for this year's Bayside affair was a small boat race, with light and moderate going, mostly with free sheets. With a strong breeze and some windward work, as in the 1930 race, the big boys will come into their own, just as they did in this year's Bermuda Race.

+ + +

That yacht racing is one of the cleanest of sports is a generally acknowledged fact, yet occasionally a contestant is "shown up" in a gross evasion of the accepted rules. The various auxiliary races, in which contestants are allowed just so much fuel, and no more, are the contests where rule-breaking is easiest and most effective. Some few years ago an entrant in the Jeffrey's Ledge Auxiliary Race was found to have used extra fuel. His entry is no longer accepted. Two years ago I "smoked out" a similar case in the Huntington-Cornfield Race, and the boat was disqualified. The most recent case to come to my notice was in the recent Bayside-Block Island Race. One of the contestants used some reserve fuel. One of her crew, whom we shall call Smith, found it out, and persuaded the owner not to finish. But if it hadn't been for Smith, the boat would have finished, and as she was well up, might very well have taken a prize. I shall take the greatest pleasure in doing my best to see that the entry of this boat is refused in all future races, either auxiliary or sail. The sooner we drive such people out of yacht racing, the better.

+ + +

Now and again we hear some yachtsman pipe up: "Yes, we all know what Nat Herreshoff has done in the past, and what Burgess, Alden, Mower and others are still doing in the line of naval architecture. But who's going to replace these men when they fade out of the picture?" Well, what's the matter with Olin Stephens, with his *Dorade*, *Conewago*, and three boats on the victorious American team of Six-Metres? And Phil Rhodes, with his *Narwhal* cleaning up four straight long-distance races last year, and his *Tidal Wave* copping the Riverside-Middle Ground and Bayside-Block Island races this year, not forgetting the Huntington-Cornfield event in 1930? And there'll be others, so I guess we don't have to worry much about American prestige in yacht designing.



The INVADER *by Hall-Scott . . . 250-275 h. p. 6 cylinder marine engine for express commuter and fast cruiser service. Compact, simple in arrangement, sturdy. Built in pairs for twin installation.*

"Worrier IV" and "Worrier V", taxi-type boats, built by Fellows & Stewart of Wilmington, California. Owned by Captain William A. Hoss of Atlantic City, N. J. and Charleston, S. C. Length 40' . . . beam, 10' 4" . . . draft, 30".

Hall-Scotts help give the public a taste of speed . . .

Out on the West Coast at San Pedro . . . on the East Coast at Atlantic City . . . a new and interesting business has grown up—the taxi boat. In its early development cheap boats and converted automobile engines were used. As the owners made a few dollars, it was invested in marine engines. They used practically every make on the market. Then they started keeping costs. And it all simmered down to the fact that where Hall-Scotts were used, the net was greater at the end of the year. Today the water taxi fleet is 98% Hall-Scott equipped—a tribute to Hall-Scott economy and efficiency that no boat owner, private or commercial, can afford to overlook these days.

Outstanding craft in the taxi fleet are those owned by Captain W. A. Hoss. He has the concession to operate from Young's Million Dollar Pier in Atlantic City. To give the public the thrill it seeks, he equipped his boats with 250 h. p. Hall-Scott INVADERS. With these new power plants the "Worrier IV" and "Worrier V" have been operating continuously from the Atlantic City Pier, yielding their owner a profit, his patrons full value in speed and safety.

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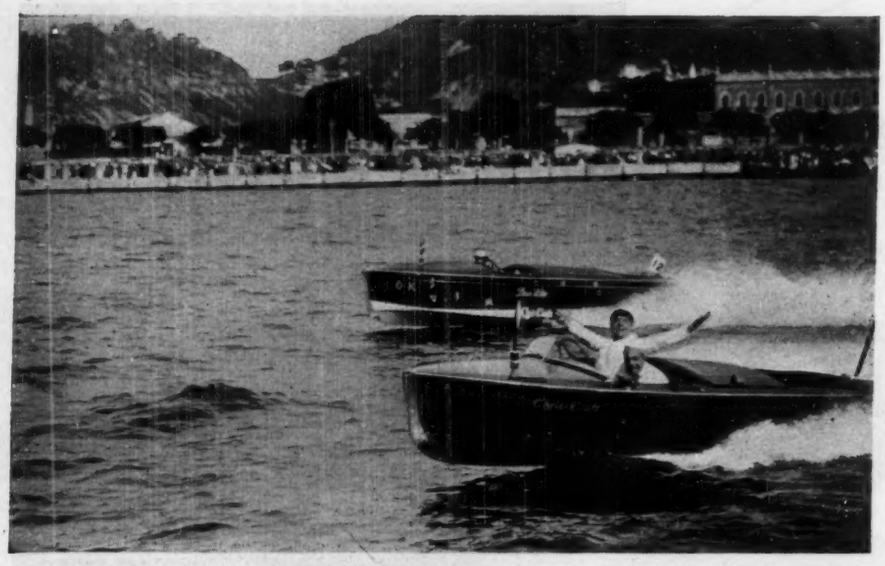


A 15-foot Chris-Craft crosses the line a winner during the Fluminense Yacht Club regatta in Rio de Janeiro Harbor

Of Interest To The Skipper

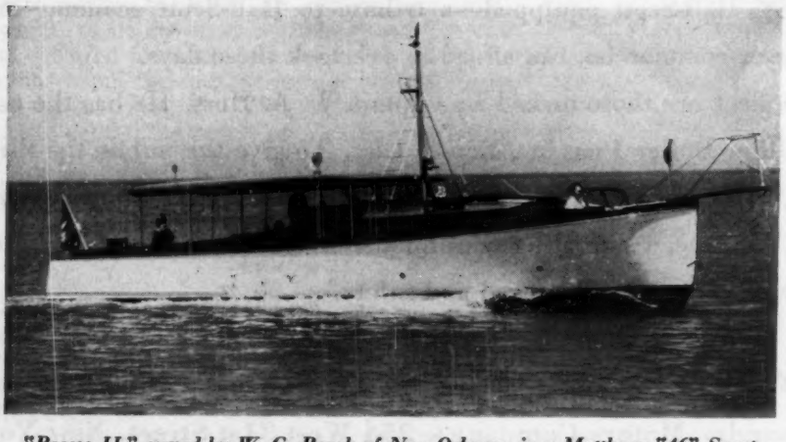
"Recess II," a Matthews Sport Cruiser

ONE of the most outstanding boats delivered this season by the Matthews Co., of Port Clinton, Ohio, is *Recess II*, owned by Federal Judge Wayne G. Borah, of New Orleans. She is a Matthews "46" Sport Cruiser, with length of 46′ 10″, beam of 11′, and draft of 3′ 2″. The construction is husky, with hull of generous freeboard and excellent flare forward, ensuring a dry boat at all times.

The generous flare gives an extra-wide forward cockpit, and fine quarters for a crew of two men. The main cabin has four Pullman-type berths, dresser, generous locker space, with a ladder giving access to the forward cockpit and crew's quarters. The galley is located just abaft the main cabin, with toilet room opposite.

The large open after cockpit has a removable and reversible seat, deeply upholstered, with drawer space underneath, and an ice box with a capacity of 250 pounds. Two swivel chairs are installed aft for fishing, the canopy being foreshortened to allow free play of fishing tackle.

One of the most interesting features of *Recess II* is the power installation. The main plant is a 225 h.p. Kermath, giving a top speed of 20 miles an hour. Installed alongside the main plant is a 25 h.p. Universal Superfour auxiliary, direct-connected to the main propeller shaft with Matthews Silent Chain Drive, giving 2:1 reduction. On trial runs, the little Universal drove the big cruiser 9 miles an hour, making an ideal hook-up for trolling use. This Silent Chain Drive was developed by Matthews engineers in conjunction with the Morse Chain Co.



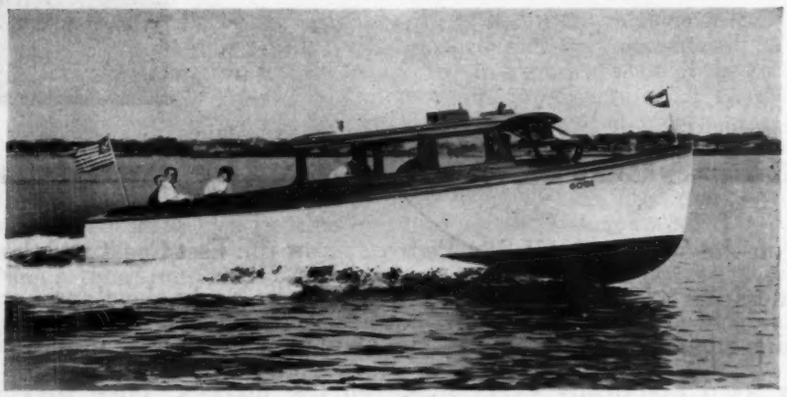
"Recess II," owned by W. G. Borah of New Orleans, is a Matthews "46" Sport Cruiser powered with a 225 h.p. Kermath engine and a 25 h.p. Universal auxiliary

Worthington Pump Corp. Announces New Line of Diesel Motors

Covering power requirements from 50 to 1000 horsepower, in 2- to 8-cylinder units, a new line of 4-cycle, direct-injection moderate speed Diesel engines for marine propulsion and auxiliary service has been introduced recently by the Worthington Pump and Machinery Corporation, Harrison, N. J. It is said that the final design of these engines was established only after several years of experimentation and operation under actual working conditions. The result is a series of simple, rugged, dependable and accessible units incorporating only time-tried features, and highly standardized to meet all present needs for small and moderate-powered engines.

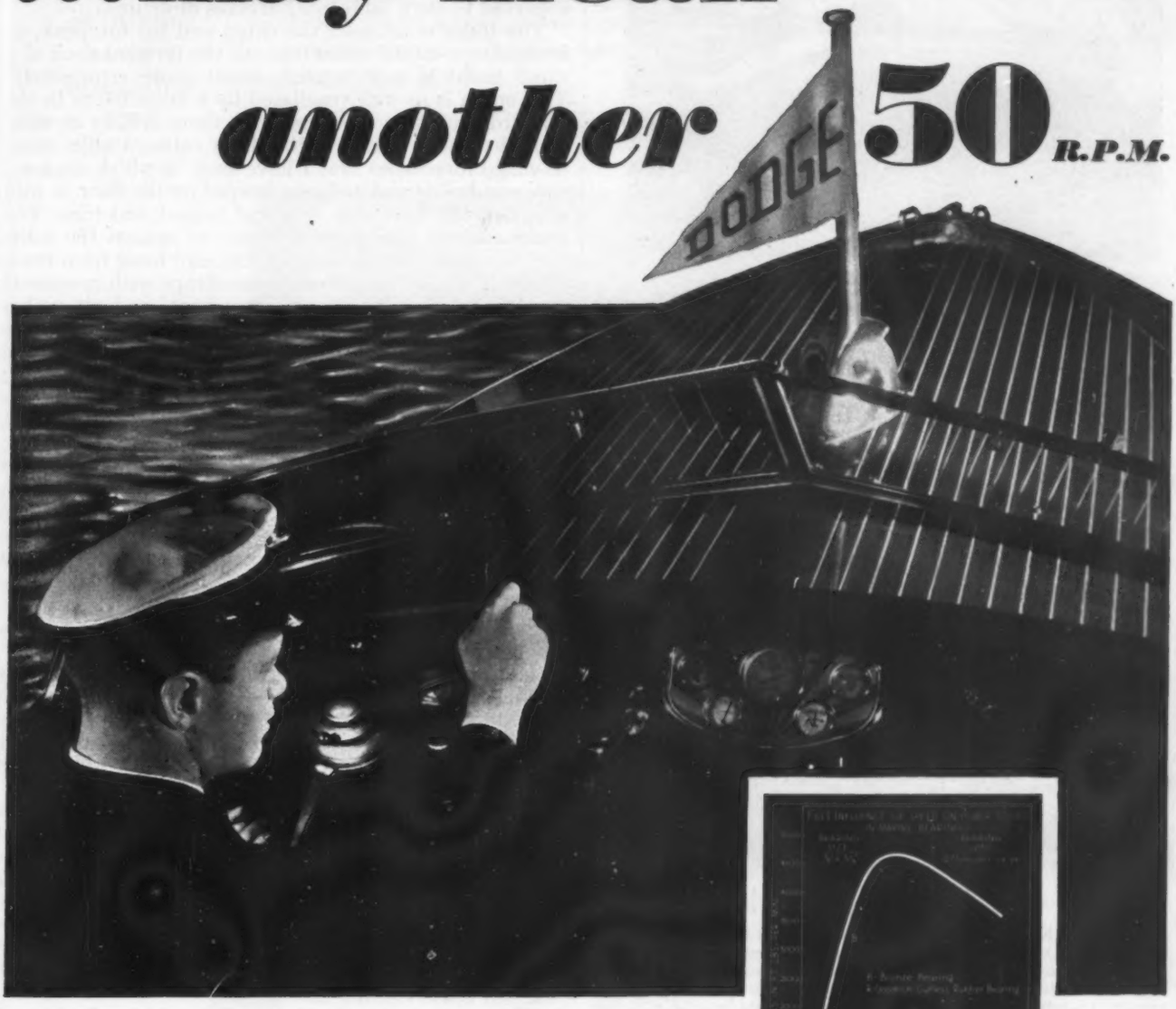
Among the many salient features of construction of these Diesels are: Individual fuel pumps for each cylinder, with fuel lines of equal length, hydraulically control the injection of fuel; individual air starting pilot valves control the admission of starting air to each cylinder; and spray valves are pressure-actuated, no push rods or levers being used. In the larger engines, air inlet and exhaust valves are carried in removable and interchangeable cages, the exhaust

(*Continued on page 85*)

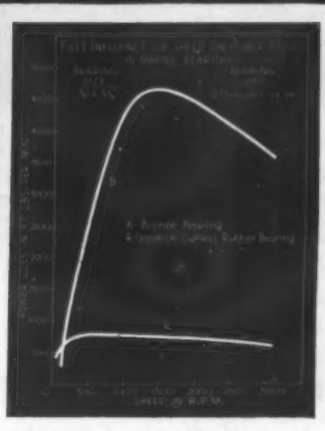


A new 30-foot, 18-m.p.h. fishing boat built by Wheeler and powered with a Chrysler Imperial engine

...may mean another 50 R.P.M.



THE TACHOMETER *records the extra R.P.M. a rubber bearing releases from your power plant. The chart at the right shows the comparative power losses resulting from the use of bronze bearings and rubber bearings. Note, for instance, that at 1500 R.P.M. a bronze bearing is responsible for a power loss approximately 8 times as great as that of a rubber bearing.*



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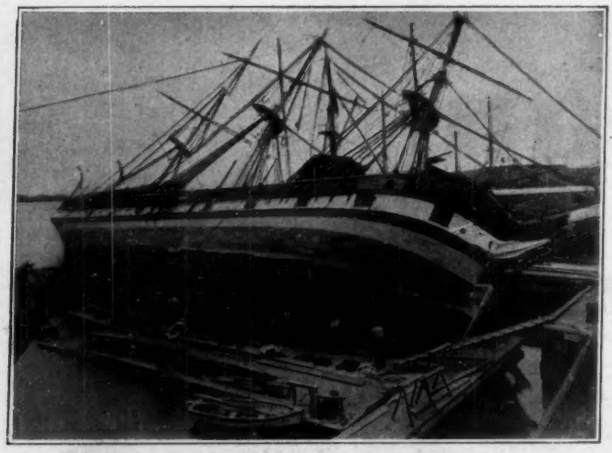
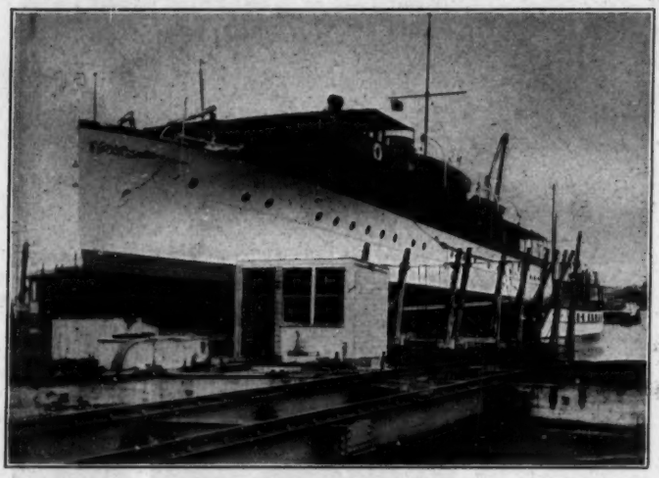
THE RUBBER BEARING *is now standard equipment on most standardized boats. It is available for either stern or strut castings, whichever your boat requires.*



The OLD WAY *and the* NEW WAY *at New Bedford*



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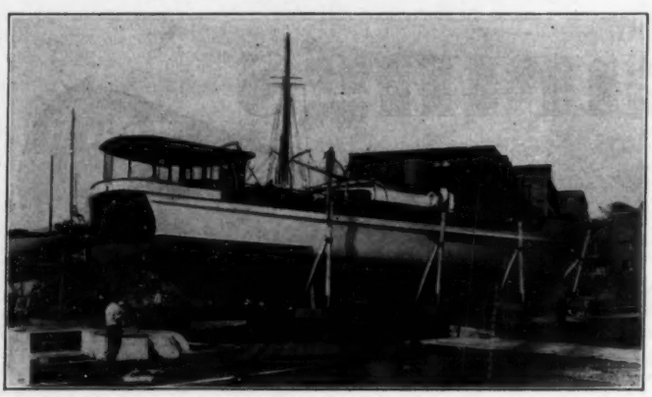
New Bedford, Massachusetts



Some Deep Thoughts on Shoal Draft

(*Continued from page 38*)

ger! Moreover, as if to make a public display of the paucity of one's sartorial effects, there are open compartments, at either side of the lockers, in which one is expected to stow additional articles of attire.

The toilet is between the cabin and the forepeak, or forecastle — as the space beneath the forward deck of a small yacht is now termed, albeit quite erroneously. This space is so well ventilated by a large hatch in the forward deck that the pipe berth there is fully as comfortable as the bunks in the main cabin. Unlike some so-called forecastles that I have seen, in which anchors, ropes and odds and ends are heaped on the floor in wild disorder, the forecastle of *Astrid* is neat and trim. The spare anchors are fastened in chocks against the sides, and the ropes are made up in coils and hung from brass fender hooks by means of canvas straps with grommets in their ends. Very simple, very neat, and altogether practicable. Some of the longer lengths of rope are made up in two coils. And the ropes that are used most often are hung near the hatch so that they may be reached from the deck.

The motor, a Scripps F-4, installed beneath the cockpit floor, turns an 18-inch, two-blade, automatic feathering propeller with an ease and smoothness of operation that is delightful. Not having accurate data on the maximum speed of *Astrid* under power, I decline to commit myself further than to state that a yachtsman who timed her, with a fine display of dexterity, reported that she made 12 knots. Perhaps she did, but I doubt it. When the motor is turning over at a speed at which the vibration is scarcely perceptible *Astrid* makes an honest eight nautical, in a calm. And she makes it quietly, owing to her dual exhaust. The main outlet is at the waterline on the starboard side, while a branch connection, taken off just abaft the muffler through a short length of rubber hose, discharges above the waterline on the port side. The result is a soft and soothing "puff-puff."

The motor compartment is separated from the cabin by a removable bulkhead. On either side of the motor there are lockers in the space between the side of the cockpit and the side of the hull. These lockers may be reached from the cabin, or from the cockpit through watertight hatches. There are ventilating flues from the floor of the motor compartment passing through the lockers and opening into the cockpit by means of screw-capped brass ventilators.

Now, although *Astrid*, with her draft of 3 feet 5 inches, is a pronounced example of the shoal draft type, she is exceedingly able. On her maiden voyage, to the Bahama Islands, she weathered an ocean gale. *Verbum sat sapienti.* In addition to being able to withstand almost anything in the way of winds and waves, she is very pleasant to sail because she handles easily and glides along with a peculiarly smooth motion, rising and falling gently, without those harsh impacts that kill the headway of a small boat. And, in spite of her shoal draft, I have never experienced any difficulty in working her to windward. In truth, she makes better work of it than a 30-foot sloop, of well-known design, drawing a full five feet, which I formerly owned.

Instead of boring you with a detailed narrative of her performance during a season's cruising, I shall summarize the matter by stating that I am convinced that *Astrid* is the best boat for cruising that I have owned. By "best," I mean the most seaworthy; the easiest to handle; the most comfortable; and, by reason of her shoal draft, the most convenient.

And after all, convenience counts a lot, in a yacht — a boat that is used for pleasure. It is convenient to be

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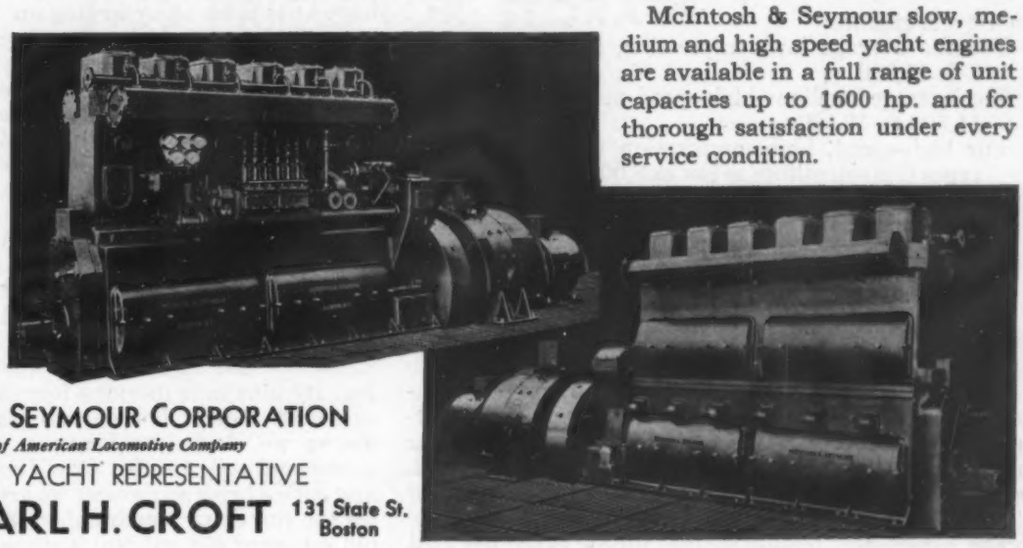

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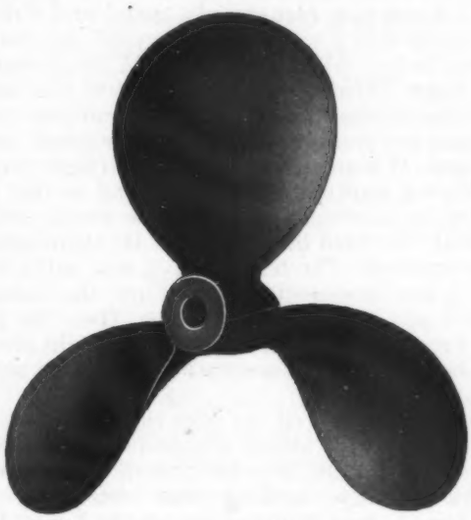

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able to run up to club floats, and to anchor close inshore. And it is pleasant to be able to explore the many shallow bays and inlets and rivers closed to boats of deeper draft. And it isn't as though the shoal draft boats couldn't go where the others go. For they can, and do. Thus, in so far as coastwise cruising is concerned, the advantage lies wholly with the boats of shoal draft.

+ + +

"Big Horses" and "Little Horses"

(*Continued from page 55*)

In 4-cycle engines:

For the average low-compression, heavy-duty type C is 14,000.

For average medium high-speed motors C is about 11,500 to 12,500.

For high-speed, high-compression motors of racing types C is sometimes as low as 8,000 to 10,000.

In 2-cycle engines:

For average low-compression, heavy-duty type C is 11,500 to 12,000.

For medium high-speed motors C is 9,000 to 10,000.

For high-speed, high-compression racing types C in some cases is as low as 7,000 to 8,000.

The mysteries of "torque" are also among the bugaboos of laymen interested in the fundamental engineering values of motor boating. We hear of "high-torque motors." We hear that a motor "holds its torque at high speeds." Torque is a measure of the twisting moment, or "twist," given by the motor. Referring again to the brake horsepower testing sketch, torque is the net load on the scale multiplied by the length of the arm. It is, therefore, easy to compute the torque if the brake horsepower and the r.p.m. are known. Take a Gold Cup boat for example. The Gold Cup engine produces, roughly, 300 h.p. at 3,000 r.p.m. If this engine were tested on a brake with a 63-inch arm the net load on the scale would be 100 pounds and the torque would be 6,300 inch-pounds.

Newton enunciated three basic laws which are as true today as they were when he stated them. The second law states: "Action and reaction are equal but opposite in direction." Applying this law to the combination of propeller, engine and hull, it follows that the engine tends to revolve the boat with a torque exactly equal to the torque on the propeller shaft, but in the opposite direction. Thus, with a right-hand propeller, the starboard side of the hull goes up and the port side down, and the hull tends to heel to port. It is, then, the motor torque which makes the hull heel.

It is also generally believed that propeller pitch and diameter have something to do with the amount of torque. We hear many supposed experts speak of "keeping down your pitch and torque." As a matter of fact, neither diameter nor pitch have anything to do with it. The torque reaction comes from horsepower and r.p.m., as we see from the formula. It is true that a propeller of too much pitch or diameter slows the motor down. As a consequence, the boat does not go as fast and loses some of the dynamic stability which speed gives; its planes are not so effective, and usually the torque increases when the r.p.m. are held below that corresponding to the maximum horsepower. With the motor turning at its peak — at the revolutions per minute at which it produces its maximum horsepower — the torque is less than at some lower r.p.m., because it is a fact that the torque maximum is reached far below the revolutions at which the motor reaches its peak of power.

The combination of an increase in torque due to decreasing r.p.m. and a decrease in stability due to a loss in boat speed usually produce an increase in the heel when the revolutions are reduced by too great a pitch or diameter.

+ + +

Old Coasters

(*Continued from page 43*)

most of the old schooners. Two of the old-timers that I have known are still carrying on. Their builders, if they are still alive, would hardly recognize them; they have been rebuilt many times. They both have gasoline engines installed now and both have lost their topmasts and jibbooms, having only spike bowsprits. They are the *Maud Weston*, formerly the *Maggie Roach*, and the *Dwina*. Both were built as fishermen and are of the clipper bow type.

In July of 1930, I was fortunate in being invited to take a trip in the *Maud Weston*. We left her home port, Rexton, N. B., with a deckload so high that the man at the wheel had to stand on the wheelbox in order to see the end of the bowsprit. We had very light winds and were twenty-four hours making a run of about sixty miles. We tied up in Summerside at seven in the morning. By nine next morning four of us had put the cargo of 54,000 feet of boards and plank on the wharf. At eleven we started to beat out of Summerside under power and sail. Off Sea Cow Head power was shut off and with a brisk sou'wester we gradually eased off sheets for the run down Northumberland Strait. And how this old schooner did go! Not a stone of ballast in her, and standing up like a church with the wind abeam, she fairly leaped from wave to wave.

It was a beautiful sight from the end of the bowsprit to watch the smother under her bows, and the power of her. I don't know how fast she was going and I don't care. I do know that I was enjoying myself and that it was too good to last. Along about three in the afternoon we passed Cape Tormentine and ran out of the wind, had calms and catspaws all around the compass until about seven in the evening, when a thunder squall made up in the west. It seemed to be making straight for us. Captain Weston wanted to get her around so that she would be on the starboard tack, but she would neither stay nor wear, the wind being so light. He then decided to douse everything. The binnacle and side lights were lighted as it was now getting dark. First, the mainsail was lowered and tied up in a fashion, then the jibs. Before the foresail was down, the squall was right aboard of us, and before the sail was smothered we were wet to the hide, oilskins and all.

And did it thunder! Well, we were right in the center of the squall, and were almost stunned and blinded by crash after crash of the heaviest thunder I have ever experienced. Luckily, nothing was struck by the lightning, but the rain drowned out all the lights. Half an hour later she was under all sail again, with a very light sou'wester, which lasted all night.

At seven next morning we were beating up Pictou Harbor under power and sail, where she was to be hauled out for the annual cleaning and painting.

Talk about your yachting! *This* was the real thing. Since then the old schooner has put in another summer of freighting and is now tied up for the winter. May she carry on for many more years.

The sail plan shown is about as accurate as can possibly be made from a photograph, and the height of spars is not exaggerated, as these vessels were very lofty in proportion to their length.

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1933 PRICES FOR STORAGE AND LABOR

	Storage		
Sailing and Auxiliary	*Dry*	**Wet*	*Under Cover*
20–30 over all feet	$.75	$.50	$2.50
30–60 over all feet	1.00	.75	3.00
60–80 etc. over all feet	1.50	1.25	
Cruisers			
20–30	.75	.50	2.50
30–60	1.00	.75	3.00
60–125	1.50	1.75	
Runabouts			
15–30	.75		1.50
Outboards — Row boats, etc.			5.00 *each*

*Includes hauling in fall for ice sheathing, and hauling in spring for paint, also watchman service

MISCELLANEOUS

Canvas covers, rental one year	$.04 per sq. ft.
Labor for removal of spars, etc.	1.00 per hour
Labor for cover frames	1.00 per hour
Storage lockers one year	10.00–20.00 each

LABOR PRICES

Carpenters	$1.50 per hour, less 15%
Cabinet makers	1.60 per hour, less 15%
Mechanics	1.60 per hour, less 15%
Riggers	1.60 per hour, less 15%
Painters	1.30 per hour, less 15%
Laborers	1.25 per hour, less 15%

The above low prices for storage and labor are based on increased capacity for handling boats this year, together with lower labor costs. The same skilled labor as usual is available which has for many years maintained the reputation of this Shipyard. A prompt application for storage this winter is kindly requested in order to avoid disappointment since the number of new boats in the Shipyard must necessarily be limited. For the information of those not familiar with this Yard, we are equipped to do every branch of work, both on power and sailing boats. All wet storage is in fresh water in inclosed basins with very little ice. Any vessel not exceeding 13′ draft can be accommodated. Good accommodations can be had in the town for the housing of crews. The Shipyard allows the yacht's regular crew to work on every part of the hull except topsides and bottom.

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The Hudson River Sloops

(*Continued from page 42*)

A "North River gybe" is still a familiar term among boatmen, for these big sloops executed that most dangerous maneuver with impunity. In making the many twists and turns the river takes in its course through the highlands between Newburgh and Peekskill, where the sudden fierce gusts rush down the valleys and sweep across the river, some in one direction, some in another, the wind often would catch a sloop's mainsail on the reverse side and slam it suddenly across the boat in a manner calculated to break the mast; but they were wide and shallow modeled craft, like their Dutch predecessors and, having large rudders, were quick to turn on their helm. The minute the skipper saw his mainsail lift with the backwind, he jammed the rudder hard up so as to head the sloop up into the puff, and by the time the big boom swept across the deck the sloop had luffed, so that instead of everything fetching up with a terrible jerk, the sail cushioned itself on the wind before the main sheet tightened; then the skipper bore away before the wind, but with his sail now on the other side. The principle of the North River jibe was to turn the boat, leaving the main sheet untouched and letting the sail slam across. Sudden catspaws and "whirley-willys," as the revolving gusts that sweep down the mountainsides are called, made the Hudson River boatmen adepts at performing this jibe. The real danger was in the snake-like loops of the main sheet getting afoul of someone or something on the sloop's deck as they were dragged across by the sweep of the main boom.

To prevent a recurrence of the gruesome accident which happened on the sloop *James Coats* as she was jibing at the turn in the river at West Point, when a loop of the main sheet caught the helmsman and, as the rope tightened with irresistible force, took his head clean off his body and overboard, many sloops were fitted with jibing poles to carry the several parts of the main sheet high, far enough up to clear the man at the tiller. These poles were stuck upright in the rails, abreast the tiller, and they would bend when the boom swept across, but were stout enough to make the rope of the main sheet go well up above the deck before they bent enough to let the rope slide over them.

Mr. George B. Douglas of Montclair, N. J., in a search for data on the sloops at Nyack, came across some two dozen of the models of William Dickey, a famous builder of Hudson River sloops, during the first half of the last century, that had been pitched into a coal-bin and, but for his timely arrival, would all have gone up in smoke. In fact, all but six did; these he carried away and so saved. I now have three of these and have "taken off" the lines of two of them. Mr. Douglas has kindly furnished me the lines of another sloop named the *Amelia*, by the same builder. By unscrewing each layer of wood, alternately white pine and black walnut, each "lift," as it was called, I was able to mark the shape of each waterline of these models, and I found on each lift the pencil marks denoting where the shape of each section had been figured out. I have reproduced these sections just as the builder, years before, had done to determine how to shape the frames for these sloops when he was building them.

The *Victorine*, whose lines are shown here, was built by J. Welsie, at Piermont, N. Y., in 1848. She was considered by many the fastest sloop on the river. Her bowsprit at the inboard end butted against and mortised into a 14- by 14-inch Sampson post. At least half the sloops I've seen had from one to three horseshoes nailed onto the sides of this post for good luck, while on the after side was fastened an iron windlass, worked with a ratchet and a pair of wooden heaving bars that

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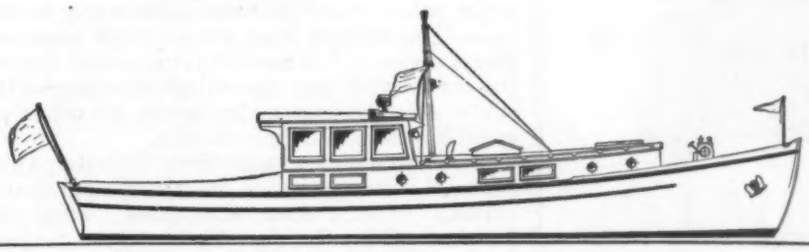

● Profile drawing of 48-foot sport fishing cruiser designed by J. E. Heston of Seattle, Wash., for Mr. Geo. R. Horner of St. Louis, Mo. Monel Metal was specified for propeller shafting, sink, drain board and galley trim as well as for hardware and hull fastenings.

MONEL METAL *extensively used in popular "Heston" Sport Fishing Cruiser...*

● This 48-foot sport fishing cruiser is one of four of the same general type designed by Mr. J. E. Heston, prominent naval architect of Seattle. Planned for service in the treacherous shoal waters of Barnegat Bay, she embodies every feature which will give maximum comfort and utmost safety afloat.

To insure the smooth performance and long life of this seaworthy craft Mr. Heston has specified a Monel Metal propeller shaft, as well as Monel Metal hardware and hull fastenings. This same versatile Nickel alloy will make the galley a model of attractiveness, modern convenience and shining cleanliness!

To the shaft and vital parts of the hull structure Monel Metal brings a combination of rugged, rigid strength, resistance to corrosion and sand abrasion, and a flawless rolled structure that defies heavy strain and sharp impacts. In the galley, Monel Metal's bright beauty, rust immunity and satin-smoothness provide surfaces which are easy to keep "shipshape" and attractive at all times.

Whether your boat is a custom-built or stock model you can have her equipped with a Monel Metal shaft and Monel Metal brightwork...and you'll find it will pay to have both. Consult your boatyard owner—or write us for further information.

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were inserted about eight inches into pipe-like sockets on the after side of the windlass. Close abaft this bitt-post was the forward hatch, where the galley and forecastle were located under the deck up in the bows of the sloop.

There were two cargo hatches, as was then the practice on river sloops. One, about a foot abaft the mast, was the larger of the two, about 10 feet long by 8 feet wide, its cover being divided into two covers, reducing them to a size two men could lift by the flush ringbolts in opposite corners. The other hatch, slightly smaller, about six feet square, with a single hatch cover, was just abaft the centerboard case.

There was one peculiarity of the Hudson River sloops that I shall never forget — the long white or red cornucopia-shaped fly that stuck up on a small pole above the truck on the tip of the topmast. Its open mouth was sewed around a small mast hoop, a topmast hoop, and it was held out horizontally for about two feet by a light wooden slat. From here, in calm weather, it hung down listlessly, but in a breeze it streamed out nobly, like a long foolscap, and, as the hoop was pivoted to swing freely, it served as an indicator of the direction in which the wind was blowing. No sloop seemed complete without this weather vane, a relic of the days when the worthy Dutchmen sailed their sloops up this same river with those elaborate weather vanes, or vangs, so dear to the hearts of the Dutchmen, at the masthead.

\+ + +

The Cruise of the "Marco Polo"

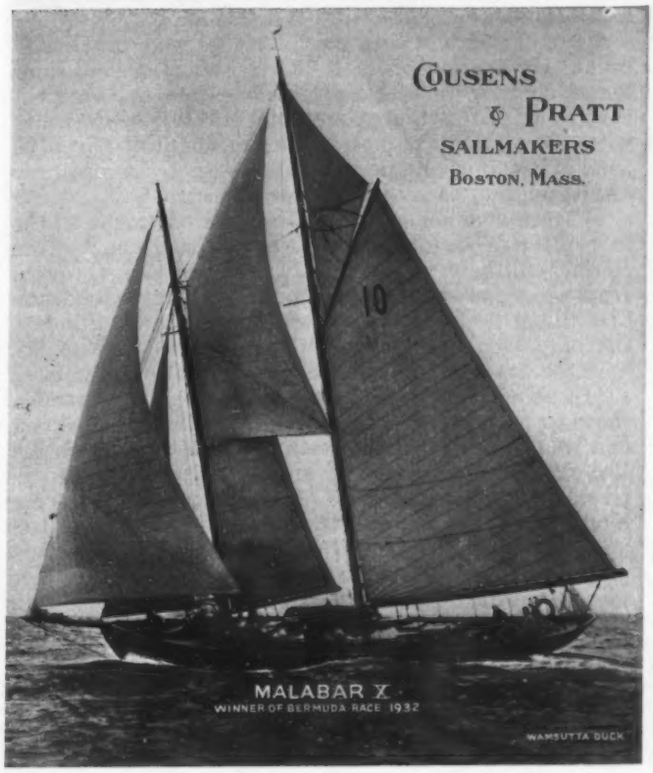
(*Continued from page 35*)

run all night when the tows are tied up along the banks.

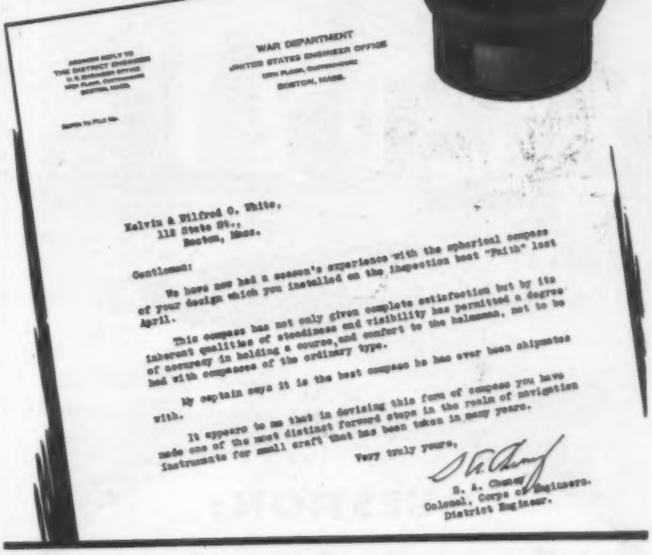
It was late afternoon when we entered the Ems-Dortmund Canal. We passed through long, straight stretches where the grass-grown banks were hemmed in by pine trees which cast their reflections in the quiet water, while ahead the canal faded away in the evening haze. The villages here are crowded together, and in places the canal has been built up so high that one passes the towns with only the red-tiled roofs and the church spires showing above the banks. In other places the canal has been cut through hills.

We were only six miles from Münster, enjoying the peaceful evening and the smell of Westphalian ham and cabbage coming from the galley, when the engine knocked off for the day. The accursed magneto again. In the morning we called to the first tow that came by. The tug gave three toots, slowed down, and we tossed our line to the last barge. In the Münster lock we hung on to our friend's 18-foot rudder, and were very comfortable there, away from the walls of the lock as the water came surging in. The barges have these big rudders because the canals are narrow and when two strings of six barges pass they must do a handsome bit of steering. Their steering wheels are usually horizontal and about ten feet in diameter. The helmsman has a footpath circling the wheel around which he runs at a great rate when in a tight place. At the lock we got a bill for towing six miles — seventy-five cents, which is the set charge.

At Münster we found a genius to work on our engine — Herr Lancier, of Lancier and Company, who make dock machinery. He found that our engine was clear out of time. Everything was wrong. In his big plant, which was all but closed down, he got all the lathes and machinery going; hopping about from one to another, he made small screws for the carburetor, a rod for the magneto, etc., talking all the time, and drawing pictures to illustrate everything. He would not work for people to whom he couldn't talk about the job, he said; they



"the best shipmate"



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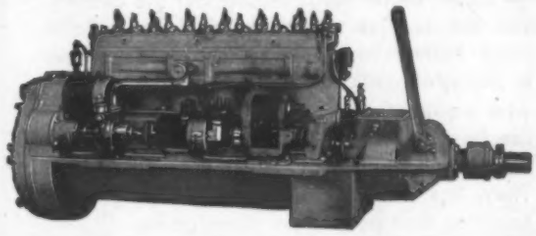

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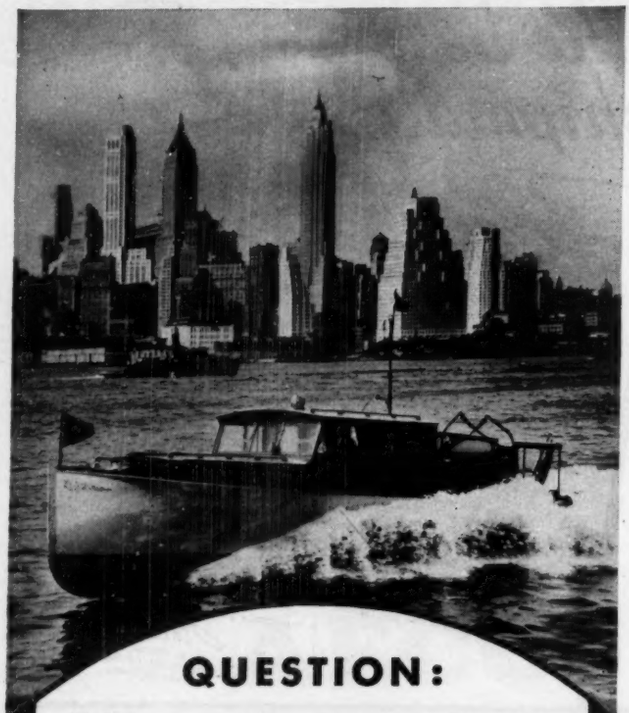

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should know what was wrong and take an interest. It seems that he had just been making the very screw we needed when we arrived — he was delighted. So were we. But we trembled as he made out his bill. After our series of encounters with mechanics we were practically broke. He overlooked most of the things he had done for us, charged only for a mechanic's time, and then cut that down. After filling our notebook full of drawings with the German names for the mechanical parts, he left. What our engine needed was not an ordinary mechanic, but a scientist — Herr Lancier.

Fifty-eight kilometres from Münster we came to the first of the seven locks on the way to the Rhine — "the River." Blithely we tied up, waiting to lock through. No more ships were going through that day. Good, the first thing in the morning then; but that was Sunday, the bargemen's holiday. In the lock with us Monday morning at six was one of the many little motorboats — *Lebensmittel Boots*, which sell everything from wooden shoes to beer. We got fresh milk and rolls for breakfast and went on through the rest of the locks, through the Ruhr Basin, surrounded by smoke, noise and industry. Even though the hundreds of mines and mills are running on short schedules, the impression is one of tremendous industry. In spots the canal is 25 to 30 feet deep where it has settled because of the mining. The water swarms with coal barges — Dutch barges with coal for Amsterdam and the sea, French barges with coal for Strasbourg and Switzerland, German barges with coal for Frankfort, Bamberg, Hanover.

The Rhine had been our goal for so long, had seemed so unattainable — with our magneto — that now we were almost there we felt a new concern. Would we be able to go up the river against the terrific current we had heard so much about? All day we inquired of everyone we saw, lockmasters, towboat men, bargemen's wives; "*Wie stark ist der Strom?*" And each time the answer was different. One minute we were elated, as we heard the current was negligible; the next in despair, as we were told we could not hope to breast the current with our 12 to 13 kilometres an hour.

Out of the last lock, and we had come down the hill and were in Duisburg harbor, one of the largest inland harbors in the world, with docks and basins on every side, hundreds and hundreds of barges, tied up nine abreast, steamers and tugs all about. We were lost in the maze. We had no chart, but we were resolved not to come out ignominiously and ask for the whereabouts of the Rhine. Just ahead, around another corner, we saw a steamer coming at a terrific rate; then, in a smother of white water, she swung around toward us. A moment later, as the current gripped the *Marco Polo*, sweeping us broadside downstream, we understood. This *was* the Rhine! There was no doubt about it. All we had to do was to head into that six-knot current, miss the tugs, barges and steamers, and we would be heading toward Düsseldorf.

Behind us came an enormous, beamy side-wheel tug — a monster which, from the deck of the *Marco Polo*, looked as though it could eat us and digest us in its churning paddles. Just ahead a tug screeched wildly as it put out from the crowded shore, pulling a barge sideways across the stream, blocking our way. An ocean steamer crowded up on our starboard hand. The paddle monster came up from behind. We backed, put the helm over, held our breath and wished fervently for the quiet of the grassy Ems Canal. . . . The tug straightened out her barge, the monster astern slowed down and the ocean tramp dipped her ensign to us — we were merely passing through Duisburg harbor.

Five hours later we tied up behind the mole in Düsseldorf, the Paris of Germany.

(To be continued)

Of Interest to the Skipper

(*Continued from page 72*)

valve cages being water cooled; in the smaller engines, these valves (also interchangeable and adjustable) seat directly in the cylinder head and operate in removable bushings.

Lubricating oil is positively circulated by an attached reciprocating pump (regardless of the angle of inclination), through a cast-in main duct in the base with cast-in branches leading to the bottom of each main bearing. From the main bearings, the oil reaches the crank and wristpin bearings under pressure through drilled passages in the crankshaft and connecting rods. Other points requiring lubrication — camshaft gear, governor, etc. — are supplied with oil under pressure from the flywheel end of the main oil duct. In all but the smallest engines, the cylinders are 2-point lubricated by force feed.

The camshaft, readily removable at right angles, is driven by spur gears with silent spiral teeth from the flywheel end of the engine. The entire camshaft assembly, including its lubrication, is enclosed with a tight cover. Cooling is provided at all essential points, including the exhaust manifold, the principal feature being that the flow in all jackets is so directed that high water velocities result, and there are no dead pockets. A combined water circulating and bilge pump, of the double acting plunger type, is standard equipment. However, if desired, a centrifugal circulating pump with a separate reciprocating bilge pump can be furnished.

On the smallest engines, the well-known Joe's reversing gear and clutch is employed. Larger sizes are fitted with direct reversing gear.

These marine engines are paralleled by a line of 4-cycle direct injection units for stationary services.

\+ + +

Another a.c.f. Cruiser

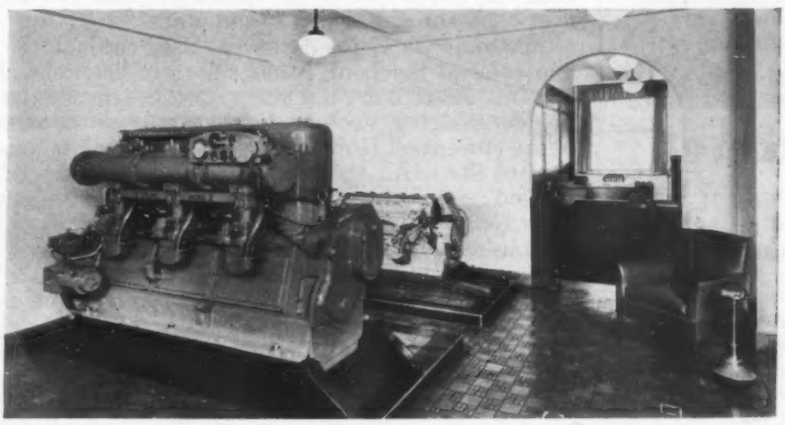
Another a.c.f. 38-foot Twin Screw Express Cruiser came up from Wilmington, Delaware, under her own power recently, for delivery to City Island, July 28th, to Mr. Thomas Manville, Jr., of New York and Westchester. This craft, built at the Wilmington plant of American Car and Foundry Company, is equipped with a pair of Gray 8-cylinder 110 h.p. motors.

Mr. Manville has named his a.c.f. cruiser *No*, and her home port will be in Long Island waters.

\+ + +

L. W. Ferdinand & Co. Resume Production

L. W. Ferdinand & Co. of Boston, Mass., makers of Jeffery's Marine Glue, are now back in full production which was interrupted on February 12th by a serious fire in their factory at Cambridge. At their new site, 599 Albany Street, Boston, they have combined their office with factory and warehouse and have increased the plant in capacity and efficiency.



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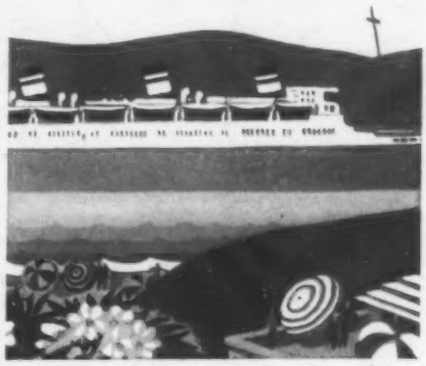

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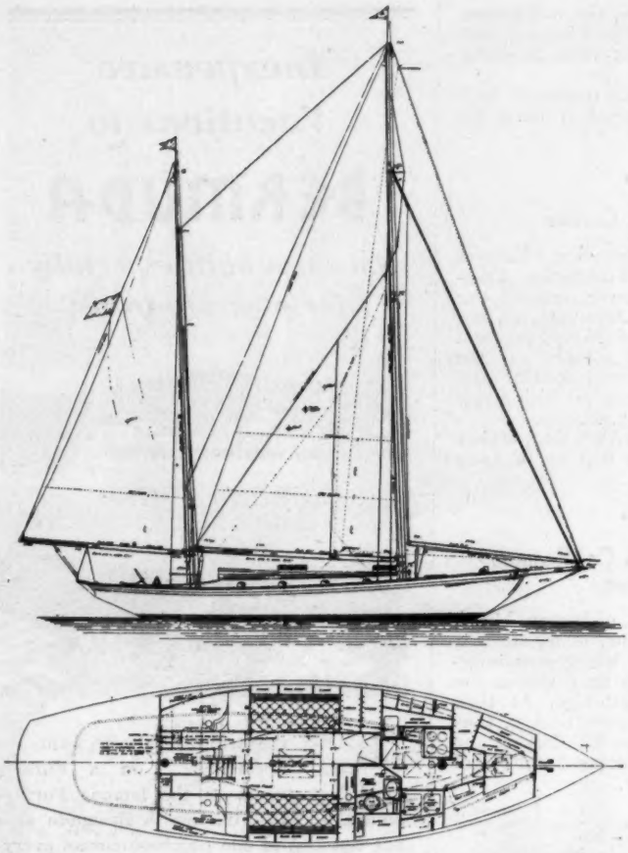

KATHERINE III
43-Ft. Auxiliary Ketch

The ketch shown herewith was built for William H. Gibbs of New York. The plan shows a very able model 43 ft. overall, 31 ft. 6 in. load water line, 12 ft. beam, 6 ft. 5 in. draft.

A Gray "4-44" motor with reduction gear gave the boat a speed of about 9 miles an hour under power. The cabin shows a very roomy interior with four berths aft, large toilet, roomy galley, and a berth forward for a man. Handling was made easy by the snug ketch rig.

We highly recommend this model, which can be duplicated very reasonably.

More Alden Boats Win!

Chicago-Mackinac Race again won by Alden boat, R. P. Benedict's gaff rigged schooner "Bagheera."

Detroit-Mackinac Race again won by Alden boat, R. A. Bell's gaff rigged schooner "Melodie."

International R-boat series, between Vancouver and Seattle, again won by Alden R-boat, "Lady Pat."

Warwick Neck Country Club Ocean Race won by Alden 35-foot stock yawl, Fred Mason's "Dolphin"; 2nd, Alden 45-foot auxiliary ketch, Charles D. Jencks' "Werdna."

John G. Alden

Naval Architect — 148 STATE STREET — *Yacht Broker* — BOSTON, MASS.

The Bayside-Block Island Race

(*Continued from page 46*)

the larger boats soon drawing ahead in the race to be first around Stepping Stone Light. Once around the light, *Dauntless* established a lead and drew a breeze from the north shore which filled her sails nicely. This troubled the weather guessers because the day was hot and presaged the usual southwester off the Long Island shore. Part of the fleet stuck to their convictions about the southerly and the others headed for the north shore, where they found a fair northerly slant and pulled ahead of the van, with *Playmate* leading *Rissa* and *Malolo*. However, the northerly soon reached across the Sound and the entire fleet made good time with the wind abaft the beam and all light kites set.

Off Eaton's Neck the wind drew into the west for about an hour and the larger boats suddenly discovered that they were being overtaken by a thunderhead of white canvas bulging its 1700 square feet of cotton from the mainmast of *Tidal Wave*. She was almost on the verge of taking off the water with Ernest Ratsey's famous parachute spinnaker actually raising her bow about six inches out of the water.

The moderate northwester held all night long and carried the fleet down to the Race in time to catch the strength of the favorable ebb tide. *Playmate*, having held to the Connecticut shore, had established almost an hour's lead over the other boats of her size and rounded the north end of Block Island a little after two o'clock in the morning. She passed *Dauntless* coming around from the south end of the Island and the two led the fleet back through the Gut and Race.

The majority of the fleet went back through the Gut and combed the Long Island beach to keep out of the current. *Tidal Wave* did some close beachcombing and boulder dodging, we hear, but she escaped the strength of the current off Horton's Point by so doing. *Kumalong* held to the north shore, looking for the northerly that seemed assured by the fleecy cloud moving southward from New England. By afternoon, the northwester was established and *Kumalong*, with the other boats that had chosen this course, had a better slant than the fleet on the Long Island shore. *Playmate* was still well ahead, but, being close-hauled on the starboard tack, she was laid over so that her off-centered propeller came out of the water and remained useless.

At sunset Saturday night, about thirty-two hours after the start, *Dauntless* crossed the line and the fleet came hard on her heels with motors roaring wide open.

It was a good race and a fast one, and *Tidal Wave's* victory was popular because it provides hope for the smaller entries, which critics proclaim have no chance.

Yacht and Owner	*Elapsed Time*	*Corrected Time*
Tidal Wave, S. Wetherill	36:51:30	27:39:30
Kumalong, J. W. Ripley	34:00:50	28:40:50
Playmate, R. D. Teller	33:56:30	28:52:30
Wild Goose, C. D. Rockwell, Jr.	34:19:05	29:10:41
Malolo, P. T. Moses	33:59:00	29:25:36
Idler, Hugh Kilmer	34:52:20	29:25:56
Grey Gull II, W. P. Campbell	38:18:00	30:06:00
Dauntless, H. B. Merwin	31:57:52	30:15:52
Curlew, D. Rosenstein	35:37:20	30:34:32
Rissa, Seward de Hart	34:48:02	30:40:26
Ulua, F. S. Carter	33:36:40	30:54:48
Volante, A. L. Loomis	35:10:20	31:24:24
Yolu San, J. D. Robb	39:10:45	32:57:45
Marietta, T. Tompkins	39:54:05	33:18:05
Viola, S. Vernet	37:26:40	33:53:40
Weaf, J. Wallington	46:16:25	38:58:25
Lanakai, A. C. Howe	49:21:50	43:09:50
Wench, R. J. Cadranell	52:15:20	44:10:20
Ariel, J. Aron	51:14:20	47:44:20

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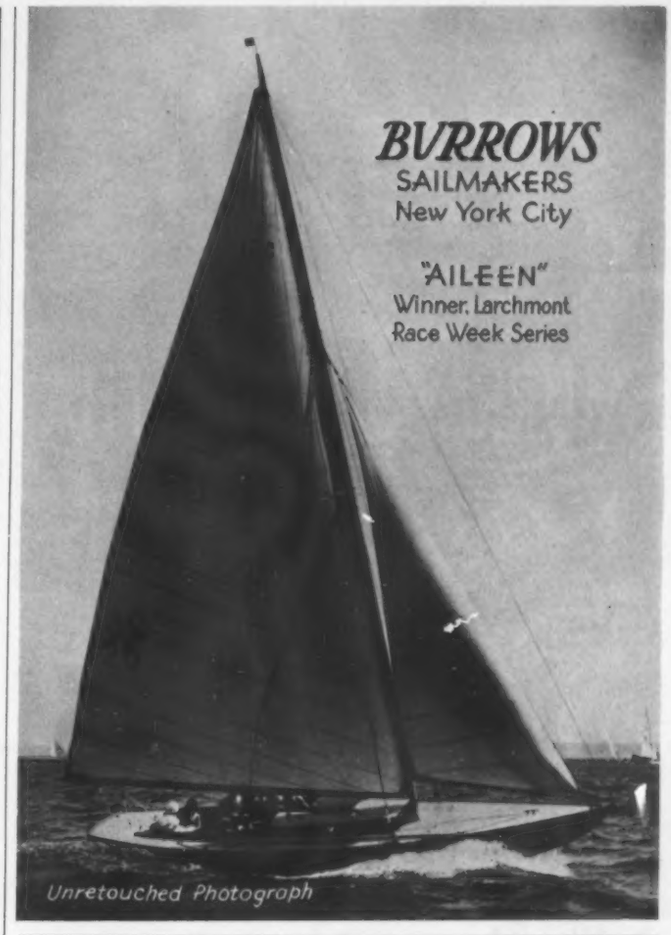

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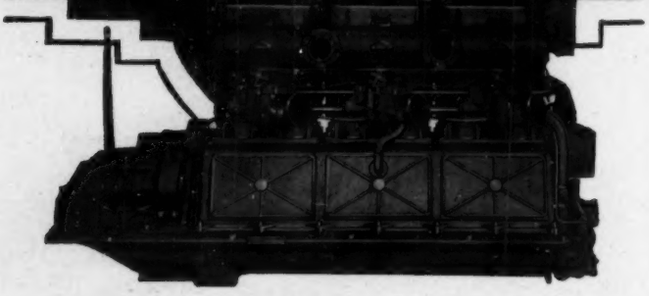

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North Quincy, Mass.

"Melodie" Wins Port Huron-Mackinac Race

(*Continued from page 45*)

main peak should carry away in the wee small hours with our weary crew? Well, it didn't, but in the morning, as we approached Presque Isle, *Spindrift*, splendidly sailed, was ahead, and *Josephine* was right with us. But the wind died and then came in light from the northeast.

The sun came clear, out of quiet water Monday morning, and we had a chance to put the inside of the ship on the outside and dry it out. We had a quiet breakfast in the cockpit and at midday a stew. And what a stew! A stew with all the trimmings, fixings, supplements, and adjuncts. And to crown it all, a speck of white on the northwestern horizon, which, by the longest hair in the beard of the prophet, must be *Trident*. And *Suez*, the other scratch boat, inshore of us. Of course, we knew there was something wrong with her. Otherwise a special dispensation of providence, alone, could have enabled us to overtake *Suez* to windward in a chop and a strong wind. Later we learned that some of the bowsprit rigging had carried away and she could not use her headsails.

And right here we got a break. For *Trident*, beating to the west up the Straits, got far to the north, and the wind changed to the northeast, making her course a dead run, while we, further to the south, could keep the wind a little on the starboard quarter. From her position, before she was anything but a dim spot on the horizon, we speculated that this was so, and conjecture grew to certainty as that speck of white grew to a larger spot, then to a triangle, a larger triangle, two masts instead of one — two triangles — gradually, so gradually — a line of black hull beneath. At dark on Monday, looking into the setting sun as *Trident* passed Poe Reef Light, we guessed that only some four or five miles separated us from the boat which had twice won the Mackinac Race and had never in her two years at Detroit followed another boat across the finish line. In the meantime, *Spindrift*, to whom we had to give 50 minutes, had done us the kindness to get herself becalmed in Hammond's Bay. Having three hours' time allowance on *Suez* and *Trident*, and some twenty miles to go, we felt that it was their turn to worry. Unless a breeze should take *Trident* in and leave us flat, we saw no way in which she could get her three hours.

And then the wind went flat. We kept *Melodie* creeping by playing the catspaws. Many times we had a breath from the north that moved us a hundred yards and died; and after ten minutes, without changing our course, we got the fisherman over to take advantage of a breath from the south. Some time about midnight we sighted *Trident* through the murk, almost abeam, though we refused to hope it was she until everyone on board had studied that shadowy shape through the glasses. Almost immediately she got a zephyr from the south-

\+ + +

The Summary

Name	*Owner*	*Elapsed Time*	*Corrected Time*
Melodie	R. A. Bell	63:27:40	60:20:32
Trident	Warren Booth Syndicate	63:30:13	60:20:32
Josephine	Wm. A. Petzold	65:56:43	63:37:41
Suez	Howard Grant	64:18:59	63:37:41
Grace	A. E. Denio	69:10:34	64:24:24
Spindrift	Trent McMath Syndicate	68:33:16	64:35:56
Squall	P. C. Williamson	71:45:55	65:50:31
Nawanna	T. B. Farnsworth	72:20:05	68:22:45
Silhouette	E. Avery	72:22:35	68:52:28
Red Arrow	Dr. J. W. Vaughan	93:45:15	91:10:45

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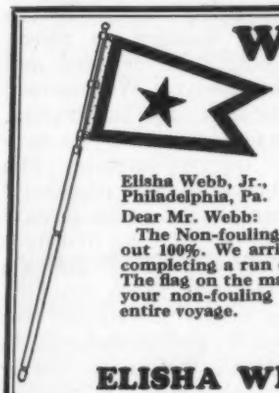
Countless repairs around a boat can be made with this amazing preparation that handles like putty and hardens into waterproof, weatherproof wood you can plane, carve, varnish, paint or lacquer. For instance: Stem rot, rebuilding chafed planks, loose bolts, dented stems, transom rot . . . Plastic Wood does an expert job of repairing! Never be without it. Sold by all Chandlers, Hardware and Paint Dealers.



WEBBPERFECTION

Non-Fouling Fly Staff

MOTOR BOATING
NEW YORK CITY

Elisha Webb, Jr.,
Philadelphia, Pa.

July 1, 1932

Dear Mr. Webb:

The Non-fouling Fly Staff was received and is working out 100%. We arrived at Port Washington last evening completing a run of 750 miles from Port Clinton, Ohio. The flag on the masthead which was made fast to one of your non-fouling staffs did not foul once during the entire voyage.

Sincerely yours,
Chap

ELISHA WEBB & SON CO.

136 S. Front Street PHILADELPHIA, PA.

Write Immediately for Details

NEW 1932 Marblehead & Gloucester 34′ Cruisers, completely equipped, are now selling at unheard-of low prices. If in the market, don't fail to get in touch with

Staples, Johnson & Company

BIDDEFORD MAINE

A Large Money Saver

Out of Commission — a powerful wood preserver. **In Commission** — the most effective preventive of Marine Growth, Barnacles and Borers. Avoids expensive scraping and Repainting Charges, covers twice the surface and lasts a long time.

Two Handsome and Luminous Colors
Emerald and Light Green

STEARNS-McKAY MFG. CO., Marblehead, Mass., U. S. A.

All the Comforts of Home — *Including the Safety*

With a Lux System aboard, you are free to enjoy your boat and entertain your guests, without even a thought of fire.

For one pull on the Lux control handle floods the bilges and engine space of a boat with fire-smothering Lux (CO_2) gas. Fire has no chance to turn pleasure into tragedy—it cannot exist in an atmosphere of Lux gas.

Besides bringing safety, Lux reduces marine insurance rates. Prices begin as low as $40.00. Send for the free booklet, "Cruising Without Fears"—don't take a chance this season.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

LUX FIRE PROTECTION

Barbasol

"THE EARLY BIRD GETS WISE"

YOU'D BETTER HURRY YOU'RE TEN MINUTES LATE ALREADY
ALRIGHT DON'T GET EXCITED - I DON'T HAVE TO GET UP SO EARLY
I'D LIKE TO KNOW WHY NOT!
BECAUSE I BOUGHT SOME BARBASOL
JOHN T. WHISKERS WHAT ARE YOU TALKING ABOUT ?
BARBASOL YOU CAN SHAVE QUICKER WITH IT BECAUSE THERE'S NO BRUSH - NO LATHER - NO RUB-IN
HOW DO YOU KNOW IT'S SO GOOD
ALL THE BOYS AT THE OFFICE USE IT - IT'S GREAT STUFF - ZIP RIGHT OFF
BARBASOL, BARBASOL DAH-DE-DAH - DE DAH-DAH
Hal Stephen

SHAVE WITHOUT LATHER! Use Barbasol for the quickest, cleanest, most comfortable shave you've ever had. Do away with all the old fuss and muss, the harsh, biting alkalis that torture a tender skin. Barbasol holds the whiskers erect so the razor can slice 'em off clean and quick, without a pull or a scrape. Leaves the natural oil in the skin, protects it from sun- and wind-burn, keeps the face soft and smooth. Get a tube today. Use it this way: **1.** Wash your face and leave it wet. **2.** Smooth on Barbasol (no vigorous rubbing needed). **3.** Wet your razor and SHAVE! That's all—and what a shave! Generous tubes at all druggists', 35¢ and 65¢, or large jar, 75¢.

Barbasol recommends TEFRA TOOTHPASTE

In every 30¢ tube there is a free Tefra toothbrush refill, to fit a lifetime Tefra refillable toothbrush handle. For full information, tune in Barbasol radio programs listed.

THE BARBASOL COMPANY
Indianapolis, Indiana

Singin' Sam, the Barbasol Man, in songs you can't forget. Every Monday, Wednesday and Friday evening, at 8:15, Eastern Daylight Saving Time, over an extensive Columbia (WABC) Broadcasting hook-up.

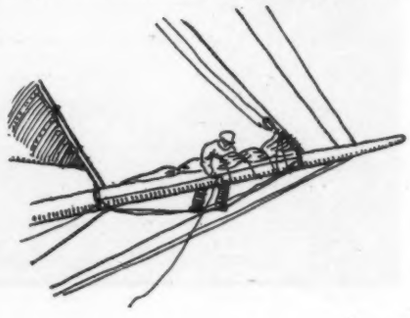
The Old Singin' Master and his singers—mellow old hymns and ballads the way you like them. Tune in every Sunday night at 10:15, Eastern Daylight Saving Time, on the N. B. C. (WJZ) Blue Network, coast to coast.

Ray Perkins, Barbasoloist with Peter Van Steeden's Barbasolians, WEAF — N. B. C. Red Network, Tuesdays and Thursdays, 7:30 P. M., Eastern Daylight Saving Time.

Consult radio page of your local newspaper for stations

west and ran ahead and out of sight on the port tack. But that took her toward the land we had been trying to "ooze" away from, and when the zephyr reached us we used it to get every inch from land we could.

Dawn of Tuesday; the Straits glassy. Fog low on the water. *Trident* close to Bois Blanc Island, we further out, but half a mile behind. And for the next three hours we had the most thrilling drifting match I have ever seen and one that I think everyone on *Melodie* will remember as long as he (or she) lives. A tell-tale was of no use whatever. It hung straight down the mast. Cigarette smoke blew promptly over to starboard where the booms were somehow making us move. We threw matches overboard and watched them creep by. We trimmed sails by intuition, by inspiration. And never was *Melodie* for one minute entirely out of control. The motion might be so slow one could hardly discern it, but some motion there was. She might take five minutes to answer the wheel, but she answered. And we were creeping, creeping — a foot — a hundred feet — a few yards — and our bearing on *Trident* changed. Within a quarter of a mile of the point of Round Island we were abeam. We were still further than she from that coveted line, for we had to come in and she was already near land. And then — a breeze. We had had to use standing canvas because we must be ready if the next zephyr required us to go to windward, but this breeze we saw coming was abeam. We set our balloon staysail — the largest piece of light canvas on the boat — behind the foresail, dropped the foresail — and to see that sail belly out was a sight to make strong men weep. Would it head us at the point? Our spinnaker was set as a jib forward, because it was lighter, but we could not go to windward with it. Set balloon jib behind it — slashed the spinnaker halliards. *Trident* is coming now, but too late. With the guests threatening to throw themselves overboard for lack of any other way to express their feelings, we get the gun, winners not only of the Mackinac Race but, boat for boat, from *Trident* and *Suez*.



PROVING IT AGAIN

The 1932 sales of Richardson Cruisabouts and "Baby" Richardsons have exceeded those of every cruiser in the same size and price class — conclusive proof, we believe, that Richardsons are preferred by those who know yachts and value. Write today for free Cruisabout booklet F-32 giving facts and figures on these finest of medium size, low-priced cruisers.

RICHARDSON BOAT COMPANY, INC.
369 Sweeney Street North Tonawanda, N. Y.

RICHARDSON CRUISABOUTS

EXHAUST WATER JACKETED MANIFOLDS, INTAKE
MANIFOLDS, GASOLINE and WATER TANKS,
VENTILATORS, PIPING, ETC.
of special design for replacements — made of
COPPER
also copper repair work of all kinds
ESTIMATES SUBMITTED
CONSOLIDATED SHIPBUILDING CORP.
Morris Heights New York City

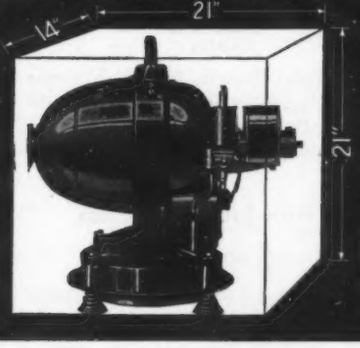
FOR EXTRA DURABLE MARINE FINISHES

BAKELITE
TRADE MARK REG. U. S. PAT. OFF.
SYNTHETIC RESIN
VARNISHES

Write for Bulletin 20, and names of makers of Bakelite Resin Varnishes

BAKELITE CORPORATION
247 Park Avenue, New York . . . 635 West 22nd St., Chicago
BAKELITE CORP. OF CANADA, LTD., 163 Dufferin St., Toronto, Ontario

HOMELITE
PORTABLE LIGHTING PLANT



600 watt, 32 or 12 volt generator with built-in gasoline engine: Weight 110 lbs. Plenty of light for powerful searchlights, and power for fans, pumps, etc.

Price, complete with batteries $275.00
(32 volt—3100 watt hours)

HOMELITE
CORPORATION
PORT CHESTER, N. Y.

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COMPASSES AND NAUTICAL INSTRUMENTS
Originators and First Patentees of the Liquid Compass
Underlit Compasses (4″–9″ Dia.)
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Dialine Compass (Radium Card and Dial)
Aperiodic Airplane Compasses
(INSTRUMENTS FOR THE NAVIGATOR)
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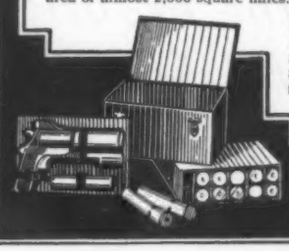
You Wouldn't Use a Match to Signal for Help . . .

Yet some still rely on the hand torch type of signal despite the 2500% greater efficiency afforded by an INTERNATIONAL SIGNAL OUTFIT which "hangs" an intensely brilliant flare 250 feet above your boat — an unmistakable S.O.S. visible over an area of almost 2,000 square miles. Officially adopted as standard equipment of U. S. Coast Guard. Approved by U. S. Steamboat Inspection Service. Write today for free book "Aerial Marine Flares."



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Tippecanoe City Ohio

WEBBPERFECTION COAL BURNING STEEL RANGES

are in steady demand. The range illustrated, one of our 2½′ outfits with coal box, is a special job, built of *bronze* and *copper* (non-magnetic and non-corrosive) for Mr. Robert Ames of Castine, Maine, for his new ketch-rigged yacht now under construction.

136 SOUTH FRONT ST. ELISHA WEBB & SON CO. PHILADELPHIA, PA.